Grand Prix international

SAN MARINO

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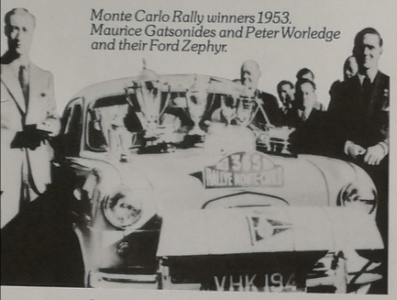
Does your car have racing in its blood?

What's the first name you think of when you think of motorsport?

Ferrari? Porsche? Lotus?

Where does Ford come on your list? In recent years Ford and Ford-powered cars have taken part in practically every major category, and quite a few of the smaller ones too.



Monte Carlo Rally winners 1953. Maurice Gatsonides and Peter Worledge and their Ford Zephyr.

Sometimes winning, sometimes losing, but always learning.

Few companies have shown such devotion to the sport, or had as much success.

Come back twenty years with us and see how much you can remember of the triumphs and tragedies, men and machines that are motor racing. And along the way we'll try and explain what makes us run . . .

Although Ford cars were racing long before (a Zephyr won the Monte Carlo Rally way back in '53), we'll start this story in the '60s, because that was a golden era.

Wherever you looked, Fords and Ford-powered cars were competing, just as they have been ever since.

Jim Clark. Lotus Cortina.

1964

Remember 1964? By now the all conquering Jaguars had been dethroned by our rumbling Galaxies and the amazing Lotus Cortina had made its debut. Those were the days when Grand Prix stars regularly drove saloons as well. Who will ever forget the sight of Jim Clark two wheeling his Cortina to victory in the British saloon car championship?

It was also the year that the Ford GT40 first went to Le Mans. And we learned that you didn't take on Ferrari and win at your first attempt!

There was some consolation though. The Ford-powered Cobras finally broke Ferrari's hold on the GT Category, beating the equally glorious GTOs. There's nostalgia for you.

Meanwhile, on the rally front, a Cortina won the Safari with Peter Hughes at the wheel. It was the second of five Ford wins in one of the world's most gruelling events.

GT40 Mk IIs Le Mans 1966.

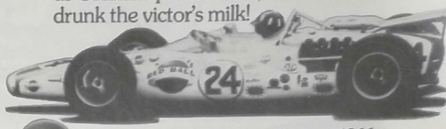
The Ford-powered Daytona Cobra. World Champion GT car 1965.

1965

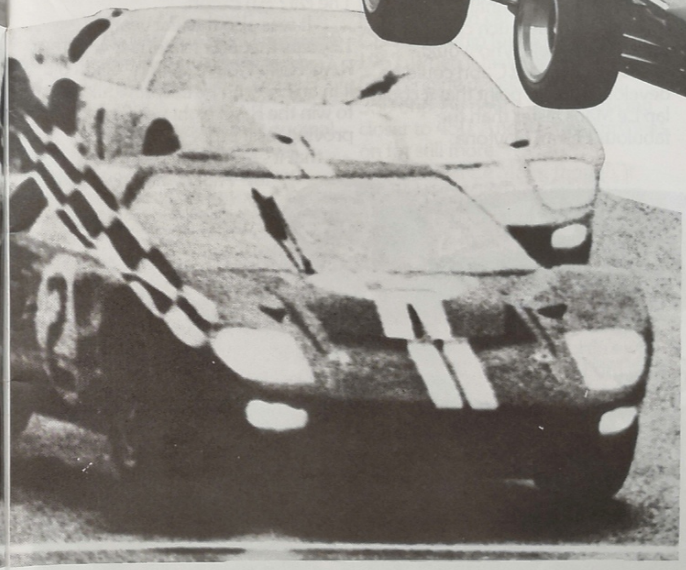
And back we went to Le Mans. This year the battle was so fierce that the entire Ford and Ferrari works teams blew themselves up. In the end a private Ferrari, the American-entered 250LM driven by Rindt and Gregory, won. But we were learning, and that after all, is why we go racing.

Jim Clark winning Dutch Grand Prix 1967.

as Graham pointed out, he'd already drunk the victor's milk!



Graham Hill. Indy. 1966.



Across the Atlantic, a quiet Scotsman did the unthinkable. Jim Clark beat the Yankees at Indy. Not only that, but he did it in a Ford-powered Lotus. The rear engined revolution had arrived in America.

1966

It's third time lucky at Le Mans. Ford GT40 MkIIs, by now sporting 7 litre engines, producing 485 bhp and topping 200 mph on the Mulsanne straight, finished first, second and third. Remember the scene? Denny Hulme and Bruce McLaren tried to stage a dead-heat. But the organisers gave the race to Bruce because his car had started behind on the grid and therefore covered the greater distance.

GT40s also won the World Championship of Makes. And a Lotus Cortina driven by Bengt Soderstrom took the RAC Rally. You may think of the Cortina as just a family car. But it's had its fair share of excitement.

Back at the Brickyard, it was Graham Hill's turn to blow off the locals, with Clark second and a young Jackie Stewart sixth. All in Ford-powered cars. At the finish Jimmy thought that he'd won the race and mounted the rostrum, but

1967

Another historic year for Ford. Jim Clark (who else?) took the new Cosworth Ford Grand Prix engine to victory at its first attempt. The car was a Lotus and the race was the Dutch Grand Prix. The engine went on to win three other GP's that year – the British, the American and the Mexican.

Back at Le Mans we witnessed the last of the great Ford – Ferrari battles. Three Fords were eliminated during the night in a single accident in the Esses. But luckily the engineers had found the reliability they needed and the leading Ford Mark IV with its 500 bhp engine managed to stay ahead of the second place Ferrari P4.

1968

A year overshadowed by the death of Clark in an unexplained accident at Hockenheim.

Graham Hill won the World Drivers' Championship. It was his second but the Ford engine's first.

At Le Mans the regulations had changed and the race was held in Autumn. But Ford won again, this time with a GT40 entered by John Wyer and driven by Rodriguez and Bianchi.

Meanwhile, a slightly humbler Ford had taken to the fray. The first of the Escorts. It would soon be winning virtually every rally in sight.

Racing in the blood (continued)

1969

1969 was Jackie Stewart's year. He took the World Championship in a Matra powered by Ford. It was also the first year in which Ford engined cars won every race on the G.P. calendar. They did it again in 1973.

And the GT40 won Le Mans for the fourth and final time. On this occasion it undoubtedly owed its victory to Jacky Ickx who managed to keep the by now ageing car just ahead of a new Porsche, beating it to the line by a mere 30 yards.

Jackie Stewart. World Champion 1969, 1971, 1973.

1970

Jochen Rindt was champion. But, as everyone remembers, the spectacular Austrian was killed in practice at Monza. Motor Racing mourned.

1971

One of racing's most successful partnerships was developing. Jackie Stewart and Ken Tyrrell. The blue car, with its Cosworth Ford engine, dominated the Grand Prix season, giving Stewart his second World Championship.

Meanwhile, in Europe, Ford went saloon car racing with a vengeance. The feature of the season was the epic struggle between our German entered Capris and the winged BMWs. From an engineering point of view, saloon car racing is especially important to us since the cars are that much closer to the ones that we sell. Who would believe that a Ford Capri could be developed to the point that it could lap Le Mans faster than the fabulous Ferrari Daytona.

Clark and Mason celebrate RAC victory 1972.

The car? An Escort.

It was also the first year for 12 years that a British driver won the RAC Rally. Roger "Albert" Clark did it in an Escort. The Escort would go on to win the RAC eight years running, proving (as if proof were needed) that it's as tough as they come. As for "Albert," no one could catch him. For the next 4 years he and his Escort remained the dominant force in British rallying, cleaning up the British Rally Championship in 1972, '73 and '75.

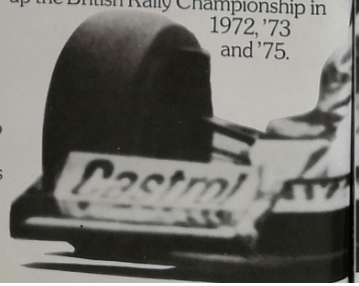
Hannu Mikkola Ford Escort. World Cup Rally 1970.

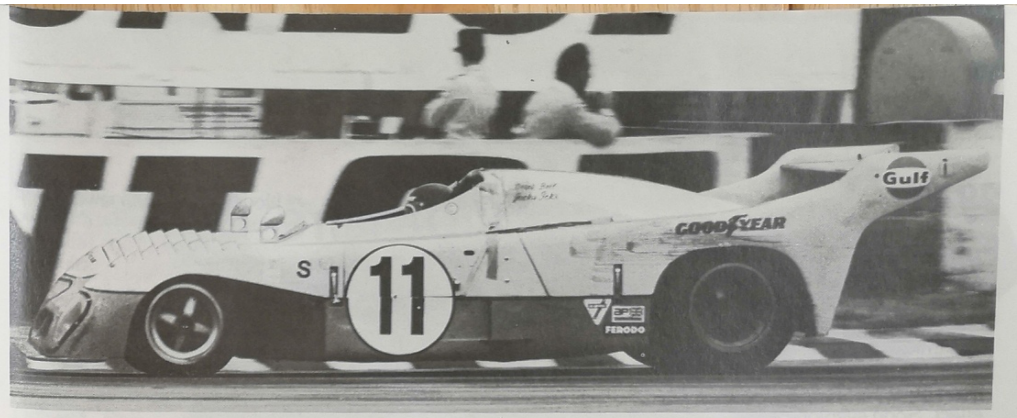
Earlier in the year, Ford entered a team of Escorts in the longest rally ever staged. The World Cup from London to Mexico. One of them was driven by a young Hannu Mikkola, who drove so fast in the early stages that his co-driver threatened to get out, convinced that the Escort would never last the pace. It did though, and won. To celebrate, we brought out a special edition of the Escort called the Mexico. Today a Mexico is something of a collector's piece, but slightly cheaper than a GT40!

1972

Now it was Colin Chapman's turn to throw his cap in the air. His new driver, Emerson Fittipaldi, crowned a meteoric rise from Formula 3, by winning the World Championship in a Lotus. As ever, he had a Ford engine behind him.

The season was marked by two other historic events. It was the first year that the East African Safari was won by a non-African driver. Remember who? Hannu Mikkola.





The Ford-powered Gulf Mirage. Le Mans winner 1975.

1973

Jackie Stewart was back in control. In this, his final season, he clocked up his 27th Grand Prix win beating Clark's and Fangio's records. 25 of those wins were powered by Ford. The other two were at the wheel of a BRM.

On the rally scene, that original Flying Finn, Timo Makinen, was driving Ford Escorts as they had never been driven before. (Apparently they handled rather better than the timber trucks he used to pilot round his native forests!) This year he was to score the first of a hat-trick of victories in the RAC rally, a feat no-one has equalled since.

1974

A sleeping giant was waking up. After several years of having been outclassed by Ford powered cars, Ferrari was back in contention, with Niki Lauda and Clay Regazzoni driving. But the Cosworth Ford engine wasn't ready to lie down yet. Fittipaldi driving a McLaren Ford narrowly won the championship.

1975

The flat 12 Ferrari engine finally gained the upper hand and a non-Ford-powered car won the World Championship for the first time since 1967. When it first appeared, the Ford engine developed around 350 bhp. By now it was producing closer to 450. And the pressure was on for still more.

Back at Le Mans, though, it proved that it still had more than enough, plus the reliability it takes to run flat out for 24 hours. This time it was mounted in the blue and orange Gulf Mirages entered by John Wyer, one of sports car racing's most experienced team managers. (He master-minded Aston Martin's win back in 1959, then several Ford wins.) This year he did it again. The drivers? Derek Bell and Jacky Ickx. They covered 2,847.7 miles.

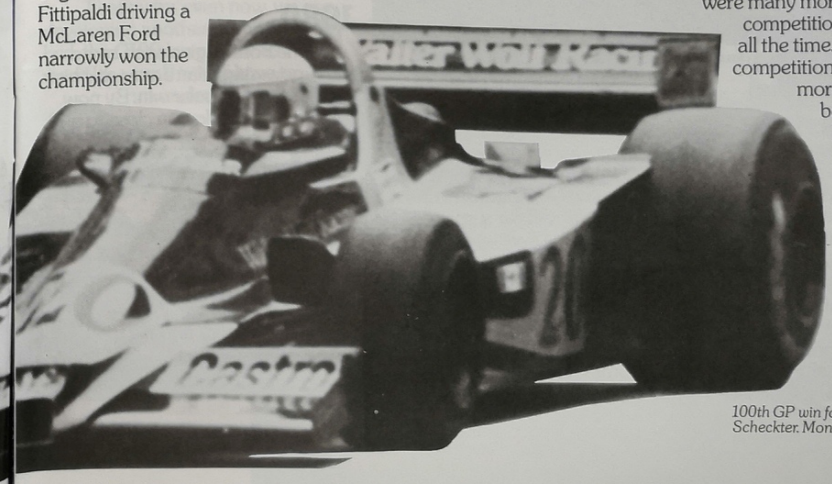
1976

A dramatic year in Grand Prix. Niki Lauda crashed at the Nurburgring and then staged an amazing comeback. But James Hunt in a Ford-powered McLaren came from behind to clinch the title in the famous wet race at Mount Fuji, Japan.

Talking of James reminds us of the grass roots of motor racing. Like so many champions before him, his career had started in Formula Ford, where they use only slightly modified Ford engines. Isn't it amazing that basically the same engines that powered Ford Cortinas are so effective in racing? It says a great deal for the original design.

1977

Ferrari's year again, and the pundits were predicting that the Ford engine had finally had its day. That didn't stop a Ford-powered Wolf driven by Jody Scheckter, winning at Monaco though, and chalking up our 100th Grand Prix win. As history would relate, there were many more to come though the competition was getting tougher all the time. We welcomed that competition. After all, it's far more satisfying when you beat Ferrari, Alfa Romeo and Renault engined cars than it is just racing against yourself. Rallying was getting tougher too. To win the 1977 Safari we had to beat works entries from Lancia, Fiat, Peugeot and Datsun.



100th GP win for Ford Cosworth engine. Scheckter. Monaco 1977.

Racing in the blood (continued)

1978

The genius who invented the monocoque Grand Prix car now started another revolution. Colin Chapman taught us all a lesson in aerodynamics with the beautiful Lotus 79, and the words on everyone's lips were "ground effect." Soon everyone was building "wing cars," but for 1978 the two black Lotus of Andretti and Peterson left everyone behind, challenged only by Bernie's outlawed "fan car." (Motor racing is still the hot house for new engineering ideas.) "ground effect" gave the Ford engines a new lease of life and Andretti a clear cut championship, but the year ended tragically when Ronnie Peterson, affectionately known as "Superswede," and one of the fastest drivers ever seen, was killed at Monza.

Mikkola, Escort winning the RAC.

Gordon Spice Racing Capris. Five times class winners in British Saloon Car Championship.

1979

This was to be our last year of rallying with our old warhorse, the Escort. But what a year it turned out to be. After years of continuous development the two litre engine was producing a reliable 240 bhp and the car had five bar link rear suspension. It took its eighth consecutive win in the RAC Rally, and after a season long battle, defeated Fiat for the World Rally Championship, winning the Portuguese Rally, the Acropolis and in New Zealand and Quebec.

Meanwhile we had started experimenting with a Rally Fiesta. This was purely a development exercise to see what would happen when 160 horsepower was applied to front wheel drive transmissions. The development car surprised us all by coming second in its class in the Monte Carlo Rally. The lessons we learned were fed into the system. One car that benefited was the new front wheel drive Escort, later to become Car of the Year, 1981.

In saloon car racing a Ford Capri won the Spa 24 hours race, a test of stamina and endurance. And Capri driver, Gordon Spice won his class in the British Saloon Car Championship for the fourth year running. He was to make it five in 1980.

In Formula 1 our engine was still winning races. Alan Jones and his Williams won 4 Grands Prix but our old rivals Ferrari took the title.

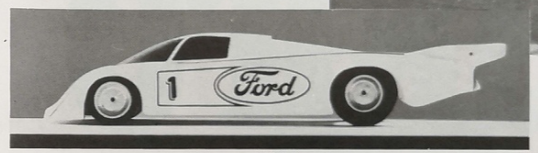
1980

The Ford engine soon came back, powering Alan Jones and his Williams to a popular win. By now our V8 was developing close to 500 horsepower and could still hold its own with twelve cylinder Ferraris and Alfas and turbo-charged Renaults.

Le Mans winner 1980. The Ford powered Rondeau.

It also beat the cream of the world's sports cars in a French Rondeau at Le Mans. And a turbo-charged Ford engine took Indianapolis. Our tenth win in the last 15 years.

Follow that Fiesta. Club racing at Silverstone.



The new C100 long distance racer for Le Mans 1982.

And beyond . . .

By now you might be asking, haven't we done enough to prove our point?

Not a bit of it. Because motor racing provides more than just publicity. Today's racing and rally cars explore the outer limits of automotive technology. The competition inspires our engineers and designers and supplies them with a wealth of knowledge they wouldn't otherwise have.

That's why, even now, we are developing another mobile test bed, the C100 long distance racer. It's a car that will have to run under strict fuel economy regulations.

If, as a result, the Ford cars you can buy for the road are a little more efficient, a little more reliable and a little more exciting to drive than other makes, it's partly because they have racing in their blood.

We'd like to pay tribute to all the drivers and technicians who have brought us so much success and leave you with this message.

The race goes on.

If ever you needed proof that competition improves the breed, here it is. The XR3. Efficient engineering plus adrenalin.

Alan Jones. World Champion 1980.

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20 CLASS A CIGARETTES

Marlboro

LOW TO MIDDLE TAR As defined by H.M. Govt. DANGER. H.M. Govt. Health Departments' WARNING: CIGARETTES CAN SERIOUSLY DAMAGE YOUR HEALTH

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Grand Prix international

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The weekend round-up of what's new in F1

The Formula One magazine is published 10 days after each Grand Prix.

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The paddock in Imola

AVON'S QUIET ARRIVAL

At Imola, for the first time since the championship season opened at Long Beach in March, there was some tyre opposition to Michelin. The big white truck with "Avon" written on its side looked unfamiliar in the paddock, but most of the personnel in their light blue baseball caps had been seen before in racing.

Their boss is Jean-Francois Mosnier, born in Michelin's home town of Clermont-Ferrand. Now a naturalised British subject, Mosnier is Managing Director of International Racing Tyre Services, the company which handles sales of Goodyear, Pirelli and Avon racing tyres from impressive headquarters near London.

Mosnier is justifiably proud of the enormous amount of effort which has gone into setting up a completely new racing tyre manufacturing facility at the Avon factory west of London in rural Wiltshire. *"We've done a year's work or more in only four months,"* he said in Italy. *"We tested some tyres for Imola only last Thursday in England, and when we found a minor problem in the production process we had completely new tyres made and ready to go when the truck left for Italy the following Tuesday."*

Only one team had decided to commit itself to Avon at Imola. *"I heard Jean-Francois explain at a press conference that he would be able to supply no more than three teams with tyres this year"*, said Fittipaldi TM Peter Warr. *"So I telephoned him immediately and told him that we wanted to be one of the three."*

Michelin is expected to continue supplying Formula 1 teams with tyres this year, but for the remainder of the season only the French company's four contracted teams - Renault, Ferrari, Alfa Romeo and Talbot - have guaranteed supplies of free rubber (and some British teams will be assisted). Although a price of 500 per set of tyres has been mentioned by Avon, Warr wants to ensure that his team is able to co-operate with Avon in developing better and faster tyres.

Nevertheless, Mosnier was at pains to explain both to the Michelin personnel and to the press that neither Avon nor IRTS intends to get involved in the sort of tyre "war" which would result in unacceptable cost. *"We're in this business as a long term project,"* he said. *"we expect to be supplying racing tyres long after the major manufacturers have dropped out."*

The weather on Sunday afternoon was destined to make Avon's modern racing debut a difficult one. Rosberg, the only Fittipaldi driver to qualify for the San Marino GP, had found during the Sunday morning warm-up that the soft Avon rain tyres were not sufficiently durable to be relied upon for a full 60 laps, so he took the gamble of starting on slicks. His race ended after 14 difficult laps when his engine failed.

MICHELIN : SIX TEAMS ONLY ?

With Avon tyres appearing at Imola on the Fittipaldis, and Pirelli on the Candy-Tolemans, French giant Michelin no longer has the monopoly on racing rubber that has existed since Long Beach. Does this mean another tyre war ?

Responding on behalf of Michelin's competition department, engineer Pierre Dupasquier told GPI in Italy that *"the ideal arrangement would be for us to look after five or six teams only.*

"We are already contracted to four teams : Ferrari, Alfa Romeo, Talbot and Renault. We expect to sign Williams very shortly following further discussions during the course of the next few days for the settlement of some minor details. As a result, we will be represented on every kind of chassis fitted with all the different engine configurations. That's the basis we're looking for, and we expect to be working closely with the front running teams. We want to be with the quick cars and the consistent drivers."

The absence of Brabham from Dupasquier's list is at first sight surprising. It could well be, however, that Bernie Ecclestone's organisation is the "sixth team" to which the Frenchman alluded. Lotus is also believed to have been in the running for Michelin support, but the current anxieties over the future of the Norfolk team would appear to have made this less likely.

"To some extent our decisions have in the hands of Ferrari and Renault," admits Dupasquier. *"They are our privileged customers and must be treated as such. It is thanks to them that we have been able to develop our racing tyres to their current level. We have to consult them."*

In fact, neither Ferrari nor Renault would want to exercise their veto rights: *"Renault is well aware of the benefits which would follow from any collaboration between Michelin and Williams,"* says Dupasquier. *"It amounts to a supplementary source of valuable information. There is also the possibility - following a request from Enzo Ferrari - that Michelin will be giving a helping hand to Osella."* The two Enzos are known to be close associates...

Looked at from a strictly sporting point of view, the current arrangements (under which Michelin supplies identical tyres to those teams requesting them) would appear to be the best. No doubt smaller teams like Ensign and Theodore would agree.

But Michelin's revised arrangements are more logical. *"The appearance of rivals obliges us to make appropriate preparations for the future,"* Dupasquier points out. *"We can't afford to rest on our laureis and continue supplying everyone. That would mean risking the possibility of another tyre company catching us napping by making tyres for just one team. We must go ahead with our development programme, and that entails offering advantages to certain carefully-chosen teams. I would say, however, that we intend to treat all our contracted teams on an equal basis, without favouring any of them over the others."*

WHY LOTUS STAYED AT HOME

The most important absentee from this first European GP of the 1981 season was Essex Lotus. The decision of the Appeal Committee set up by FISA in Paris on April 23 to hear the arguments of rival constructors was final: the Essex-Lotus T88 did not meet the regulations and would not be allowed to race.

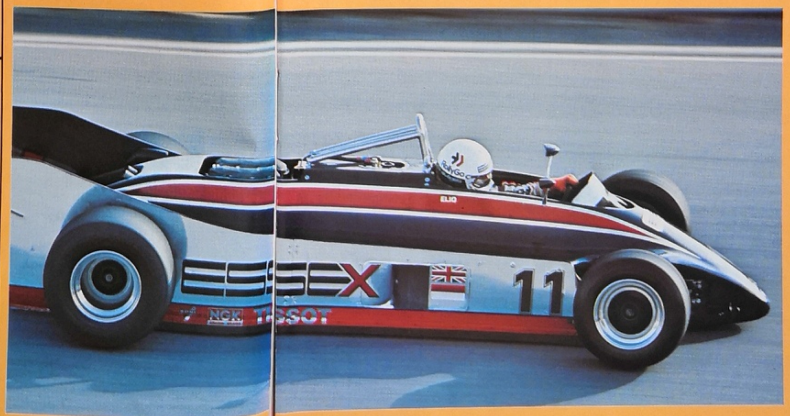
The following morning, Colin Chapman flew himself home to Norfolk in his private plane. The Lotus owner had already made a statement to a press agency suggesting that he might withdraw from racing altogether. There was certainly no question of Lotus racing at Imola, for quite apart from the difficulties raised by the arrest in Zurich and release of his sponsor, Essex boss David Thieme, the old Lotus 81 chassis were badly in need of overhaul.

While Thieme was making an assessment of his financial affairs in Monaco and preparing a defense against the charges of financial misdeeds which had been made against him in Switzerland, Chapman telexed FISA to announce that his cars would not be able to take part in the Imola race. FISA immediately accepted the situation and sent a reply excusing the team from its contractual obligations.

If Chapman had been seriously considering a permanent withdrawal from racing, the indications in the week before Imola suggested that his mind was by no means made up. One of the old Lotus 81s had been taken to Donington Park for atwo day test with Nigel Mansell, and spectators who spotted new bodywork shapes were invited to leave the pits before they could get close enough to study the details.

In the pits at Imola, two other Lotus representatives were to be found. One was racing manager Peter Collins, in Italy to observe the latest political moves. Asked about Lotus plans, Collins insisted that he knew nothing of the rumoured Lotus 87, which is said to be an updated version of the 81 with a carbon fibre chassis. *"There is only one man who knows what our racing plans are for the future"*, said Collins, *"and that is Colin Chapman. I know that he is extremely busy with meetings in London and Paris throughout the week, and I don't expect him to make a decision about the team's future until the weekend."*

Elsewhere in the pits, a much happier young man was Brazilian Roberto Moreno, the "world" Formula Ford champion who was recently signed to a three year contract with Lotus as a test driver. Having spent 19 hours in a train from England in the hope of seeing his friend and mentor Nelson Piquet win the GP, Moreno was understandably thrilled. Adding to his excitement was the promise that had been made to him that it will not be long before he, too, gets his first chance. For this "driver of the future" expects to test a Lotus Formula 1 car very soon.



REBUILDING THE RUIN

Regardless of the vicissitudes which may afflict it, "sport" remains an integral part of the word "motorsport." It is pleasant to report that at Imola, thanks to a fortunate combination of circumstances, the proof of this homily emerged with outstanding success. The race performances of three drivers, most notably of Nelson Piquet but not forgetting Didier Pironi or Gilles Villeneuve, restored Formula 1 to its true status as a competition between drivers, returning it to its former glory. At the same time, Scuderia Ferrari must be saluted for demonstrating the rude health of its turbocharged V6 engine (still with only four races behind it), and for reminding us that Formula 1 continues to abound with exceptional engineers.

The race, it must be said, came as a relief - thanks largely to the three drivers mentioned above. Their Imola prowess made it all the easier to set aside the memories of more recent unpleasantness, dating back to two days beforhand.

For a while during practice, as so many of those present where tempted to recall, there was a strong flavour of Jarama and the crisis which broke out at last year's Spanish GP. In fact, just as they had done at Jarama, the Brabham, McLaren and Williams mechanics started up a soccer match on the track in front of the pits. Meanwhile, the Formula 1 dignitaries were deliberating in the air conditioned luxury of their motorhomes.

It seemed once again that the Gordian knot was tightening. The hard technical line adopted by the scrutineers, while understandable, was handled maladroitly; and it was followed by a strike, more arguments and a delayed start to qualifying. At the heart of the problem are the subterfuges adopted by many of the constructors in order to exploit the lack of precision in the current rules. That argument has by no means been settled yet.

It is doubly unfortunate that there are strong points in favour of the arguments put forward by both sides: for although not everyone is right, certainly no one is wrong. When the truth has so many different facets, it's not difficult to pick out the one that reflects one's own case in the best light. As yet, it's difficult to see how a suitable compromise will be reached.

Happily, Pironi, Villeneuve and the winner of the race, Nelson Piquet, did a lot of good for Formula 1 at Imola. In the 105 minutes of one race they were able restore the exceptional image of Formula 1 which it should never have been allowed to lose. It would be good to imagine that this is the start of a genuine revival.

Eric BHAT

The paddock in Imola

WANTED !

The publishing group that produces Grand Prix International is looking for black and white and colour photographs covering Enzo Ferrari and all Ferrari cars, plus any illustrations or cut-away drawings. Please write to Thierry Schimpff, 7 rue de Lille, 75007 Paris, France if you have any suitable material.

JARAMA REVISITED

Arriving at Imola shortly after ten on Friday morning, there was that weird feeling that things weren't quite right. It was too quiet for there to be 30 cars trying to sort themselves out for the afternoon qualifying session. Sure enough, a quick peek at the track revealed that Formula 1 appeared to be split into two factions again: FISA and FOCA supporters. It was just like Jarama last year, only this time it was the FISA men who were out on the track, while the FOCA men kicked their heels in the pits.

Anyone with an ear to the ground knew that there was going to be trouble at Imola, and trouble there was. Grand Prix racing's latest development, hydro-pneumatic suspension, needed some sort of control or check. The local scrutineers took a tough line, and declared that only two teams had legal cars: Renault and Toleman. The others were illegal for the following reasons:

1) - flexible skirts: Williams, Brabham, Tyrrell, McLaren, ATS, Ensign, Fittipaldi, Alfa Romeo, Arrows, Osella and Theodore.

2) - flexible material between bodywork and rear wheels: Williams, McLaren, Brabham, ATS, Fittipaldi, Alfa Romeo, Ferrari, Arrows, Osella, Thedore and March.

3) - flexible material fitted to underside of nose fin end plates: Tyrrell, Williams.

4) - variable height suspension systems: Williams, Tyrrell, Brabham, Osella, Fittipaldi, Arrows and Ligier.

The first three points were considered to be unacceptable following a precedent set in the FIA appeal tribunal of April 23 when it was considering the Lotus 88. Cars affected by point 4 would be judged when their systems were operating with the car at the lowest point.

Most teams had to put their cars right before they went out on the track. Even so, that strange quietness shortly after ten was because only Renault, Ferrari, Alfa Romeo, Osella, March and Toleman were running their cars, and shortly afterwards, March joined their fellow FOCA supporters in the pits - on strike until things were sorted out.

The session was soon over, but the talking went on behind the scenes. While Gordon Murray and Jan Lammers tuned into their personal stereos and the Brabham mechanics challenged a combined Williams and McLaren team to a game of football on the track, Bernie Ecclestone pleaded with Jean-Marie Balestre to *"help us try and find a solution."* And find a solution he did. The variable height suspension systems were given the ok, but "flexible" skirts had to be replaced with "rigid" versions. In the strange but true department, Bernie Ecclestone and Max Mosley, principals of FOCA, sang Balestre's praises: *"it's thanks to him that we've sorted this thing out."*

BORGUDD PICKS UP THE RHYTHM

If you'd asked anyone who, out of the 30 drivers at Imola, wasn't going to qualify for the San Marino Grand Prix, one of the first names they would have mentioned would have been Slim Borgudd's. It was unfortunate that while Slim was so looking forward to his first Grand Prix, all the so-called *cognoscenti* had already marked him down as a non-qualifier. Thanks to a professional drumming career in his native Sweden, 34-year-old Tommy Borgudd, nick-named Slim, had met the world's most successful pop group: ABBA. The band's name was written all over the ATS team's truck and motorhome, while Slim - being much less well known - was written off by the "experts" almost before he'd stepped into the car.

In fact Slim hadn't had things quite that easy. He began racing in 1970 at the age of 23. The following year he won 16 races in Formula Ford, and in 1972 he was Sweden's 2-litre sports car champion. The following he was the national Formula Ford champion, but then he ran out of money, and it wasn't until 1978 that he reappeared, this time in Formula 3. In 1979 he finished third in the European Formula 3 championship, and Britain's Autosport magazine rated him second to Alain Prost. Last year he raced only occasionally, including outings in an F3 Ralt run by Roger Heavens who, ironically, joined him in the ATS team at Imola.

It was basically thanks to his friendship with ABBA that he was able to make his Formula 1 debut. *"They're sponsoring me,"* he explained, *"but I can tell you that it was much more difficult asking them, as friends, for money to go motor racing than asking a big unknown company to sponsor me."* Slim met the group when drumming in Sweden's recording studios. He has worked with them as well as other pop groups, but life hasn't been all that glamorous: at one point he had to sell his drums to support his motor racing.

He amazed all the pundits by qualifying for his first Grand Prix in what could be termed a bitza car. His main problem was keeping it on the road in a straight line. And ABBA's name was seen on the ATS throughout the race as Slim took the car to 13th position. Would ABBA be cheering him on at future races? *"Yes, they may come to one or two, individually of course. Someone may come to Monaco,"* said Slim. Meanwhile, he looks forward to continuing a new career which has certainly taken off well.

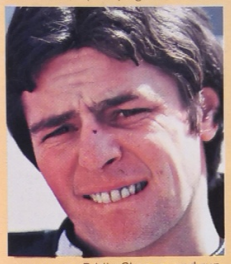
MICHELE ALBORETO : FROM THE ITALIAN SCHOOL

Michele Alboreto is a typical product of Italian racing, and there seem to be a lot of them in Grand Prix racing these days. He began racing in Formula Monza at the age of 19, then moved on to two years in Formula Italia. He made the obvious step into Formula 3 in 1979, with a March-Toyota entered by Euroracing.

Michele's first F3 season wasn't without its accidents, but at the end of the season, he took over teammate Piercarlo Ghinzani's March-Alfa as the latter was assured of winning the Italian championship and went off to South America to do the F2 Temporada. Michele (pronounced "Mee-kay-lay") won the last two races of the championship so Euroracing offered him a seat in their European team for

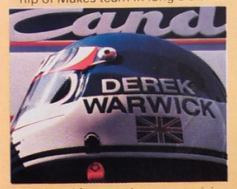
1980, alongside Teo Fabi's younger brother Corrado. It was a very exciting F3 season, with the two Euroracing drivers consistently in contention and challenged by Martini driver Thierry Boutsen. In the end Alboreto won the championship from Boutsen and Fabi, even though the two Euroracing men tangled together at Zolder.

While Fabi replaced his brother in March's 1981 Formula 2 team, later to be joined by Boutsen, Alboreto spent a long time looking for a drive. He has personal sponsorship from Candy but nothing else. Eventually the Minardi team agreed to run him without sponsorship for a few races, and it was when these first four events were over and Alboreto still hadn't scored a point in the championship that the F1 drive of a Ceramiche Imola sponsored Tyrrell came up. He acquitted himself well, qualifying in front of



teammate Eddie Cheever and running well before tangling with Gabbiani during the race.

Now this 26-year-old from Milan has to establish just what he's going to do with his career. His drive with Tyrrell was a one-off. His future in F2 is uncertain, so his only regular drive when he wants it will be in Lancia's World Championship of Makes team in long distance



races. After such a promising Grand Prix debut, that seems a shame.

DEREK WARWICK'S F1 REWARD

A brief look through the record of Derek Warwick's racing career would reveal nothing of the struggle which this 26 year old Hampshireman has had to go through on his way to the top. He started early in kart racing, at the age of 12, and five years later his hot rodding brought him the resounding title of "World Super Stock Champion".

Moving on to Formula Ford, Derek scored three victories in 1975 before putting himself firmly into the record book in 1976. That memorable season brought him no fewer than 31 race victories, the European FF championship and the encouragement of a Grovewood Award. His first year in Formula 3 was less successful, for although Derek took the British titles sponsored by Vandervell and Toyota, the vital BP championship was carried off by his season-long rival and friend Nelson Piquet.

Throughout this time, ever since he had left school, Derek was closely involved in the family business at Alresford. Warwick Trailers manufactures a much sought-after range of light trailers, and in recognition of the support which his racing received from the business, Derek had spent long hours of physical work alongside his father Derry and his uncle Stan. While the well-developed biceps on Derek's arms may be a sign of strength, they also bear witness to the efforts of a man who has had to work for his racing.

His first F2 season, as a privateer in 1979, reflected this fact, for the budget was more than the company alone could afford to pay. Although there was some support from BP and from Midlands advertising man Jack Kallay, the two European championship points which Derek scored that year cost a considerable sum in bent suspensions and blown-up engines.

But the BP association bore fruit in 1980, when Derek was called up to support Brian Henton in the BP-sponsored Toleman team. They proved perfect team mates, as Henton raced away with the European title and Warwick took two victories on his way to the runner-up position.

When Warwick arrived at Imola, he had only one test session in the Candy-Toleman behind him, but he looked fitter than ever. *"This is the opportunity I've been waiting for all my life,"* he confessed. *"I can't wait to get my first start in a Grand Prix."*

UPS AND DOWN AT ATS

There were lots of new faces to be seen in the ATS team at Imola. Mexican-born Jo Ramirez, the longest-serving team manager that ATS has had in its five year history, had resigned during the previous week together with three of the British mechanics, and ATS owner Gunter Schmid had signed up British sports car and F3 expert Roger Heavens to help look after a new crew which includes five Germans.

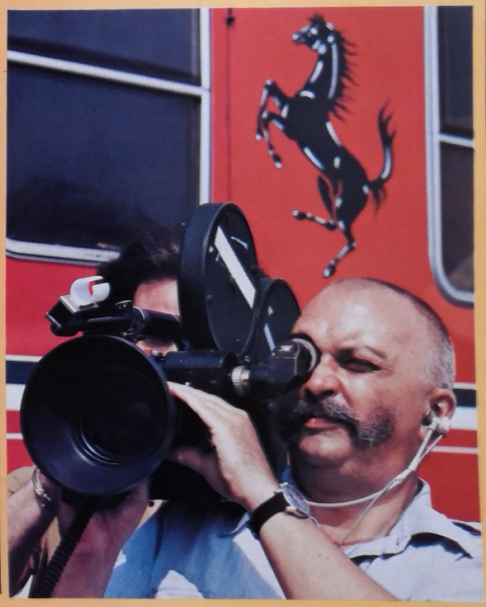
It is difficult to forecast what the future holds for ATS. The new chassis designed by ex-Ligier engineer Hervé Guilpin should be ready for Zolder, but Jan Lammers was understandable depressed not to have qualified at Imola, especially as the inexperienced Slim Borgudd outqualified him in the second ATS and went on to finish 13th in the race. Unlike Lammers, Borgudd

has been able to bring some sponsorship to ATS, whose motorhome looked very smart with the logo of the Swedish Abba singing group in large letters.

Schmid may find himself faced with having to make an unpleasant decision very soon, for if Lotus returns to racing at Zolder and Schmid wants to run two drivers, that will oblige the organisers to have some pre-qualifying sessions. And pre-qualifying is something that all the teams wish to avoid if possible.

FIAT 131 SUPERMIRAFIORI

Grand Prix International's reporting team at Imola had the use of a Fiat 131 Supermirafiori in its latest version, as seen at the Geneva Show. The face-lifted 131 certainly attracted a great deal of interest and enquiries into the recent changes of specification. With its lively performance and excellent road holding (to which its Pirelli P6 tyres wer an important contribution), we found the 131 Supermirafiori a most attractive addition to the Fiat range.



THE POWER AND THE GLORY

Two consecutive wins have rocketed Nelson Piquet into second place behind Carlos Reutemann in the world championship. His brilliant Imola performance stilled some lingering doubts from Buenos Aires, and with fourth place from Hector Rebaque the Brabham team went home satisfied. With the celebrating behind them, they'll be getting down to work on their next project, for there's a BMW turbo in their future - and a brand new car to be tested.

by Mike DOODSON

The GP of San Marino was run under the most difficult of weather conditions. The drivers had only the half hour Sunday morning warm-up session in which to get their cars set up for the wet, and during the race itself several showers of rain lubricated the track surface at the very moment when it looked as though it was about to dry. Throughout the 60 laps of the demanding Imola circuit, there was only a narrow dry line.

It was in these conditions that Nelson Piquet drove the best race of his career. Ninth on the first lap after being delayed at the start, he had taken his Parmalat Brabham past Jones, Watson and Laffite as they headed for the pits. But Patrese and Reutemann had been tougher opponents, for their cars were running well and he had to find a way past them on the wet part of the track. Once ahead of Patrese, however, he faced his most difficult rival, for he was now in 2nd place and the only remaining obstacle was a healthy Ferrari turbocar driven by a determined Frenchman called Pironi.

For more than 20 laps, the Brabham driver shadowed every move that the Ferrari made. Piquet found himself almost mesmerised by the sight of the Ferrari's two glowing KKK turbos. He could not relax for an instant, for he had to be ready to take advantage of any mistake on Pironi's part, yet at the back of his mind was the knowledge that a turbo engine can blow up violently at any moment. That, at least, had been his experience during tests with the turbo-BMW version of the Brabham during the winter...

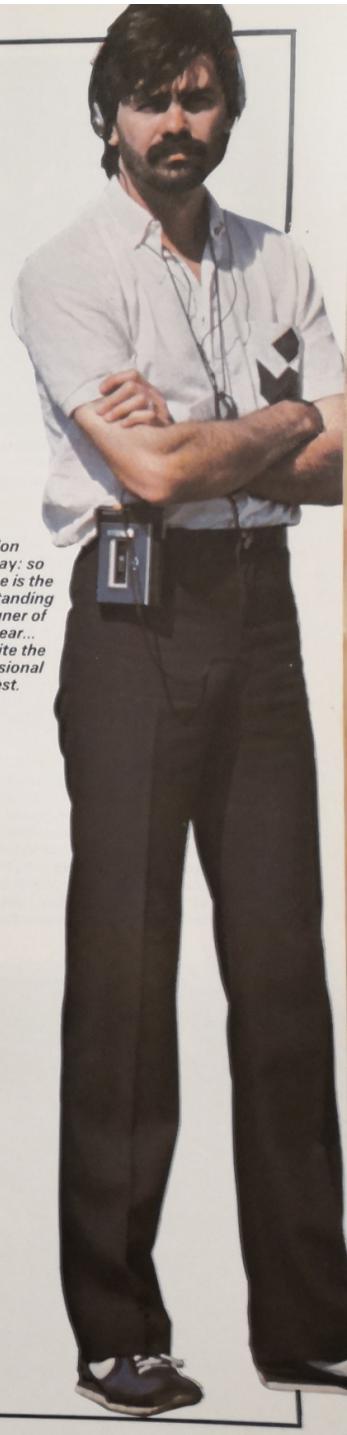
Yet Piquet found a way past Pironi on lap 47, and he raced on to take the flag after almost two hours of racing. Standing quietly among the cheering Brabham mechanics on the finish line was the car's designer Gordon Murray.

"I wasn't at all worried about Nelson being so close to the Ferrari," said Murray. *"He has become a really good race driver, as we saw last year. I think he's now in the Lauda class: he doesn't make mistakes, not even in circumstances like today."*

Murray was happy for Nelson and happy for his team. But there was a personal reason for his satisfaction, almost indeed an element of revenge. In the next door Williams pit, throughout the weekend, there had been a series of unseemly comments about the Brabham, its controversial flexi-skirts and even past results. *"Three of the last six Brabham wins have been highly contentious,"* said team co-ordinator Charlie Crichton-Stewart with an untypical lack of grace. (A reference to Lauda's "fan car" victory in Sweden 1978; Lauda's Monza 1979 win after a protest against Andretti; and Piquet's recent Argentine walkover with the help of flexible skirts).

But there was nothing contentious about this win, as Murray explained. *"Here at Imola, the officials forced us - in my opinion incorrectly with regard to the rules - to take off the flexible skirts and put on rigid skirts. We weren't the only team picked out, either: even Ferrari were told to make some changes to their skirts!"* It caused some good natured comments among the British teams after the race when it was revealed that Pironi had lost part of a skirt on a kerb, for the new rules - in which many observers feel that the Commendatore had a guiding hand - forbid any part of the bodywork from touching the track "at any moment..."

The Brabhams of Piquet and Rebaque had arrived in Italy with a completely new system of hydro-pneumatic suspension. It caused immediate serious problems. *"It wasn't working at all on the first day,"* said Murray, *"so we had to make some of the parts overnight, but the car was better this morning and Nelson decided he liked it well enough to race it like that."*



Gordon Murray: so far, he is the outstanding designer of the year... despite the occasional protest.

Nelson's winning car. This time there were no mistakes in the choise of tyres.

Murray refuses to give any more details of the transformation *("hopefully other teams are going to have the same problems that we did, so I'm not giving them any secrets!")*, but at least it proved the truth of his arguments. *"I always said that we would be able to keep our advantage by careful adjustment of the new skirts that we were forced to use. It's our suspension which gives us the edge over the other cars, not the skirts."*

Many F1 designers are irritated with the constant changes which are still taking place in the rules, whether they come in the form of so-called "clarifications" from Paris, or because individual race organisers have made their own interpretation of the "six centimètres" folly. At Imola, the "hard line" adopted by the technical scrutineers on the day before the race resulted in a semi-boycott of the morning practice session by a majority of the teams.

"Some of the other teams," notes Murray, *"appear to be using some form of valve in their hydro-pneumatic system which allows them to "drop" the car when they're out of the pits, instead of having to overcome the air pressure like we do with our system. If that's going to be allowed, we shall have to make something like it, and very soon."*

It is certainly difficult for the highly trained F1 engineers like Murray to respect the current rules, especially the "six centimetre" requirement on ground clearance demanded so punctiliously at Imola. It is almost as though a goalkeeper in a soccer match was allowed to alter the positions of his goalposts during a match, provided of course that they were returned to the "regulation" position immediately after the whistle had blown. Murray is not alone in suggesting that the best way to settle the problems and to restore the designers' respect for the rulebook would be to allow moveable skirts again. At a meeting of the designers on the day before practice, even Ferrari's Mauro Forghieri conceded that his cars were now cornering just as fast without sliding skirts as they did last year with the skirts. But Ferrari will not agree to suggest the appropriate alteration in the rules: it would require the initiative to come from FISA, and that is as unthinkable as it is logical...

In the Brabham garage before the race, Nelson Piquet was sprawled on the floor with his back to the wall. His face was pale and there wasn't anything he wanted to say. Racing manager Alastair Caldwell tappel him on the shoulder and he rose to his feet. Time to go. On with the gloves, on with the balaclava and on with the helmet. His mechanics, Charlie and Joe, leaned over the cockpit to latch the seat belts and tighten them. The engine, already warmed up, broke into immediate life after one burst on the air starter.

In the middle of all this serious business, however, there was to be a moment of humour. Brabham boss Bernie Ecclestone vaulted the pit wall and marched on to the grid with a mysterious yellow plastic bag under his arm. As Nelson drove to his place on the third row of the grid after the warm-up lap (actually he'd done two warm-up laps, by driving through the pits), Bernie prepared to make a little presentation.

Back at the Brabham factory, after Nelson had thrown away victory at Rio by choosing the wrong tyres for the rain, someone had invented the patent Brabham Tyre Indicator. It was a small box with an arrow that could be turned to a big yellow sun or a big grey cloud. Turn the arrow to the cloud, and a little grooved rain tyre appeared through an orifice: turn the arrow to the sun, and a slick would emerge. *"This is only the Mark 1 version,"* joked Bernie: *"we're still trying to make it reliable."*

Nelson received the gift with a nod and a big wink from inside his red and white Bell helmet. He looked at the sky and saw the clouds. He looked at his wheels: rain tyres. So far, so good.

Two hours later, Piquet was rapidly disappearing under a growing scrum of Italians outside his motorhome. He had won the race in a demonstration of fighting spirit that had put the polemics of the previous two days out of everyone's mind. He had sprayed the champagne, been clapped on the back by sponsors, and he had spoken to the world on Italian TV. All he wanted now was a shower and a quiet few seconds alone.

Not long afterwards, he appeared in the telex room with a big grin: the mountain for once had come to Mahommed... After a quick look at the story on the telex machine, he was ready for questions.

"Oh, it was a terrible start. Villeneuve stuck right in front of me and I could not go nowhere. I couldn't go to the right because there were so many cars, I couldn't go to the left because that would have put me on the grass. It seemed like everybody was overtaking me. That's why i was so far behind on the first lap.

"I knew I would have to fight hard to get in front. The car was handling good, but we had troubles getting it right all through the last two days. There was also something wrong with the engine, maybe a fuel pump or something. This morning, when I saw the rain, I was worried. I don't like the wet. But I knew I would have to work hard.

"Pironi? He was not as much trouble as

Hector Rebaque: three points in Italy were just reward for the second place which slipped from his grasp in Argentina.

Tambay, who was one lap behind us. He was fighting as though he was trying to win the race too: he made it impossible for me to pass. Then the Ferrari was difficult. I was hoping Pironi would make a mistake or perhaps blow up, but he didn't. No mistakes at all.

"Going up the hill he was getting too slow, maybe his tyres started giving him trouble. I had tried everywhere else on the circuit to get past him, so I thought "why not here?" If I could find some traction, I could get up close behind him and go by in the wet, because it was the only place I had not tried yet. I think he got a surprise when I was overtaking him!"

In his jeans and blue Parmalat jacket, the winner of the first (and only?) San Marino GP sauntered almost incognito out of the press room. Within three days, he would be back at the wheel of a racing car, at Silverstone, where he was due to test the BMW turbo-engined BT50 Brabham for the first time.

For the Brabham team, the satisfaction that comes from a decisive win was complemented by the fourth place of Hector Rebaque in the second BT49. In the Brabham garage, preparing to join the mechanics on their long way home, Gordon Murray was enjoying the Mexican's three points almost as much as Nelson's nine, for the number 6 Brabham's manual brake adjuster had broken, making things very uncomfortable for Rebaque.

"I think there's a chance that he'll take his racing just a bit more seriously now. He tends to concentrate more on his business at home in Mexico than on racing. But I said to him last year that it was important for him if he got a good start to this season. I think Argentina was the result he needed, even though he retired when he was second, and this race here has reinforced it. It keeps the critics quiet, stops them repeating all that stuff about "rich kids". Don't forget that Hector's got a lot of experience, more than 30 GPs already. He's a good driver."

Like Piquet, Murray turns his thoughts to the coming test with the new BMW-engined car. *"Oh yes, the day of the turbo is coming,"* he says. *"Those Ferraris... they were impossible to pass on the straight, and they both finished. If that engine ever found its way into a reasonable chassis..."* But his voice trails off. Gordon Murray isn't about to start making enemies again. □

NIKI LAUDA : "I'LL COME BACK IF..."

by Heinz Pruller

Suddenly, the story was out, in the week before Imola, spreading across Europe at racing car speed: *"Twice World Champion Niki Lauda makes a Come-back to Formula 1,"* screamed the headlines. According to the Italian press, this "ritorno glamoroso" would actually be taking place at Imola, at the wheel of one of the new McLaren built Marlboro MP4s.

Of course, Niki Lauda *was* at Imola. And, of course, he came as a pilot in the aviation meaning of the word, for he arrived behind the controls of his Fokker F27, doing a charter for Lauda-Air with 44 GP fans on board. Needless to say, of the five retired world champions to be found in the pits (the others were Phil Hill, Fittipaldi, Stewart and Scheckter), he was by far the most sought after. *"There must be something very wrong with the sport of motor racing,"* John Watson muttered, *"if someone who hasn't raced for almost two years can get such fantastic publicity just because of a rumour that he's coming back."*

As it happened, Marlboro-McLaren number one driver Watson was waiting for a new bed to be delivered to his recently-acquired London flat when the important part of the business took place. Niki was in London on business and had planned to take a day off: *"I called Bernie Ecclestone, who's boss of my old team,"* he explains with a completely straight face, *"but I discovered that he was in New York. So what should I do? I went down to a discotheque, Tramps. And guess who I happened to run into there, purely by accident? Paddy McNally!"*

After a few drinks, Marlboro man McNally made a suggestion. *"Why don't you come out to the McLaren factory with me tomorrow? We could eyeball our new carbon-fibre MP4 car..."*

Niki agreed, and off they went together next day accompanied by McLaren director Ron Dennis — who used to run Niki's BMW M1 Procar. Niki was obviously impressed. *"The McLaren people wanted me to sit in it, just to get the feel of it,"* he explains. *"They told me I could have a test drive whenever I liked, and for as long as I liked."*

But his answer was. "No". Apparently he turned down an interesting offer of as much as three million dollars for the rest of the season. It was the same amount of money that had been offered to him by Parmalat one year earlier for a come-back at Long Beach.

That same evening, every Italian paper had the sensational news on its front page. Parmalat's Sante Ghedini — in tears at Montreal on the day that Lauda had retired in 1979 — immediately telephoned Marlene Lauda in the middle of the night at the Lauda home at Hof, near Salzburg. Equally stunned, Marlene finally got through to Niki in France: *"are you crazy?"* demanded the champion's delightful wife. He did his best to calm her down. *"Don't worry, Marlene... not yet, at least."*

Meanwhile in New York, where he was doing racing business, Bernie Ecclestone was also surprised to hear the stories. He placed an instant call to Lauda's home, where Marlene again answered the phone. *"It is really true?"* asked Bernie, and Marlene could not resist having a joke with him. *"Of course it is, Bernie,"* she replied. *"Niki is going to drive for McLaren. Don't you think it's great?"*

By now extremely alarmed, the Brabham owner was making calls to all his contacts in an attempt to get hold of Lauda. In the process, he discovered that the Munich office of BMW Racing Manager Dieter Stappert was having similar difficulties in reaching Stappert, another Austrian. When at last Ecclestone got Lauda on the phone, in Vienna, he demanded an assurance. *"Swear to me, right now,"* he thundered, *"that you're not trying to take the BMW turbo away from us to give it to McLaren..."*

Niki was unable to stifle a laugh. But Bernie was deadly serious: after all, the Marlboro-sponsored McLaren-BMW F1 project for 1980 had originally been planned around Niki Lauda.

So what is the *real* truth behind the possibility of a Lauda come-back to racing in F1? In practical terms, it's out of the question for 1981. It's theoretically possible for 1982 *"Minimum six months,"* says Lauda in his abrupt stye — but *could* it ever happen? *"It might,"* he says: *"I could make the decision overnight, just like I did when I pulled out in Canada in 1979."* More precisely, he adds: *"There are two things that must take priority. First, Lauda-Air will have to be capable of running as efficiently without me as it is right now, when I'm around all the time. I had 30,000 passengers last year. I'm going to carry 50,000 in 1981. I have two Fokker F27 turboprop planes operating at the moment and a third on the way. But my first obligation is to the 30 employees of the company.*

"Second, I must have 100 per cent enthusiasm for motor racing. Or, better still, 110 per cent. I can feel that I already have 50 per cent. But when I retired I had zero. None at all. Just let things develop... my decision will be an emotional one, nothing to do with money. If you like your job, then you're doing it well, and if you're doing well then you're obviously earning your money. And we all know how much money there is involved in big-time racing..."

Basically, the appeal lies in the challenge. *"It would be interesting for me to find out whether I could still compete with people like Piquet, Villeneuve, Prost and Pironi. It's something I would like to find out. There is a special question that I want to answer for myself: is it possible for a retired driver to come back at the age of 32 and build himself up to the same mental state as, let's say, a 22 year old who can only see the attractive things about motor racing and none of the others? Can he come back and compete against youngsters who are totally ambitious and ready to drive with a full heart, constantly on the limit or over it? This is something I would like to know."*

Cars without skirts, of course, are more interesting for Niki. *"Now it's much more important again to play with the suspension, springs and dampers — that's the part of racing that I always enjoyed most."* No wonder, therefore, that Niki spent a lot of time in the pits at Imola studying the sophisticated hydro-pneumatic suspension system fitted to the Brabhams, and he had a long conversation with Nelson Piquet, once his understudy in the team.

"When you have been a racing driver, you just can't forget this big part of your life. Sometimes it's more, sometimes less, but you always have this desire to get back into a car again" Not only is there the offer of the McLaren, but Ecclestone's offer to Lauda still stands of a Brabham drive "whenever and wherever he wants." Nor should it be overlooked that Daniele Audetto, the former Ferrari team manager, has told Lauda that he would have no difficulty in persuasing Ragno, with whom he is now associated, to double the budget of the Arrows team if there was a chance of getting Niki into one of their cars.

Piquet winning, Patrese 2nd, plus a very quick McLaren at Imola: there where lots of things to think about for Niki as he helped to commentate on the Imola race for Italian TV. Sharp, clever and humorous: all the old qualities were there on Saturday, when he had taken a helicopter ride from circuit to airport. *"You are on the same flight as Jean-Marie Balestre,"* said Ecclestone, smiling, *"so please don't fight for the same seat... and for God's sake be nice to each other."*

Niki smiled back as he left. *"But didn't you always tell me that this man was unacceptable...?"* □

EXTRA, EXTRA

ECONOMY CAN BE EXPENSIVE

It's almost three months since Peter Warr, manager of the Fittipaldi team, announced at Kyalami that Emerson Fittipaldi himself had clinched a major sponsorship deal which could be revealed *"in the near future."* Speculation and close questioning since then, however, has failed to extract the sponsor's identity either from Warr or the Fittipaldi brothers, and the virgin white bodywork of the promising honeycomb F8C chassis has only carried advertising on a race by race basis.

By the time the team's two cars got to Imola, the virgin white paint was beginning to get a bit grubby. White tape covered holes and damage in the body panels which would have encouraged wealthier teams to invest in new fibreglass. The promise which had been demonstrated by the 4th and 9th places of Rosberg and Serra in South Africa had not been followed up with positive results in later GPs.

In the qualifying sessions at Imola, signs began to appear that the Brazilian owned team is having to take more serious short cuts with its budget. The undoubtedly talented Chico Serra was unable to qualify his car because it was being repaired during the final offical session. Engines which had been pressed back into service when they had already passed the recommended mileage before rebuild were proving understandably fragile.

Poor Keke Rosberg retired after only 14 laps. Although he had started the race on Avon slicks which offered virtually no grip at all on the rain sodden track, his engine (with 600 miles on it at the start) blew up, bringing the team's weekend tally of broken Ford-Cosworths up to three.

"It takes a minimum of £25,000 a month just to keep a Grand Prix team standing still, before you even think about going to the races," said a knowledgeable British observer. *"Development adds even more to the financial demands on a team, and development is something which everyone must do in order to keep up with all the changes in the rules."*

UNBROTHERLY LOVE

There seemed to be as many Italian drivers as French at Imola, six or seven if you included Italian-domiciled Eddie Cheever. They all come out of the same mould: hot-blooded with a heavy right foot and an easy line of chat. But they're very competitive, and Cheever, who has raced among them for most of his racing career, reckons that they're as much interested in racing against one another as they are against the rest of the field. But Eddie who was proud of being an American in America, obviously feels very Italian in Italy. He was involved in one of the two accidents which reduced Italian numbers from seven to three.

To be serious, things didn't start out too well in Italy. Politics threatened to kill off the San Marino Grand Prix before it had even begun. De Cesaris said *"I'd rather be at home on the beach."*

Two days later, though, the Italians were in a different frame of mind. The Ferraris had dominated the race, Patrese had had a superb battle to fiish second, and de Cesaris was a happy man with his very first world championship point.

While Andrea was ecstatic and excited, Riccardo was quiet and calm. The Arrows driver saw his second place at Imola as the logical reward for having had to retire when leading at Long Beach. *"I had a very good start as usual,"* said Riccardo afterwards. *"It's a shame that my rear tyres went off so badly because there was nothing I could do when Piquet overtook me. When he was held up behind Pironi, I thought I could catch him again, but when he got by Pironi, I realised that there was nothing I could do. Anyway, I'm happy. We've shown that, for the moment, only the Brabham is more competitive than the Arrows, and we're now slightly quicker than the Williams."*

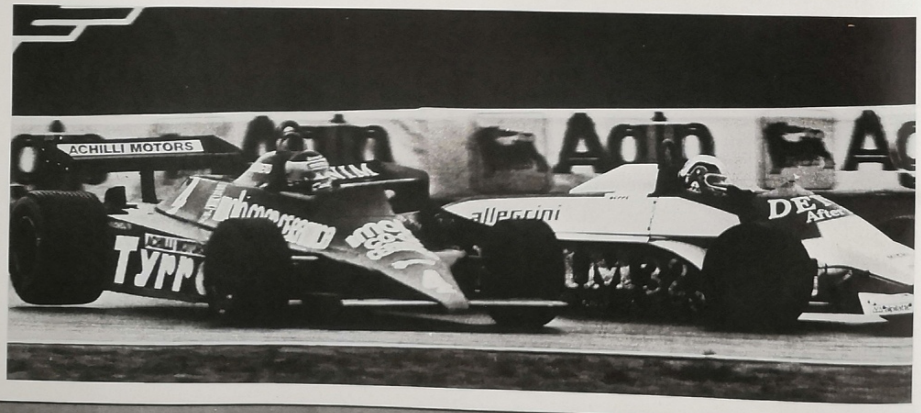
At the other end of the scale were Eddie Cheever and Bruno Giacomelli. The Alfa Romeo driver was obviously furious with Cheever, and was still swearing revenge long after the race was over as he went over the race again and again. *"It was Eddie's fault. He overtook me as we went up the hill, at the same place where de Cesaris nearly knocked me off the road a couple of laps earlier. They make a good pair, those two! I don't know why, but Cheever's front wing hit the rear end of my car, went out of control into the barrier at 120 mph. I could have been badly hurt, because I hit the Armco really hard."*

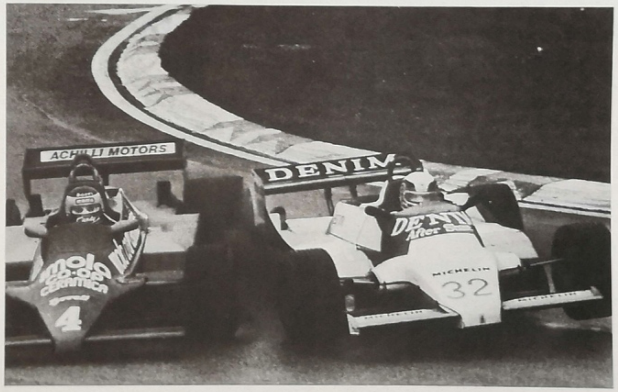
Eddie Cheever's version of the incident was somewhat different. *"We were still 200 yards away from the corner, side by side. We were approaching a right hand corner, and before he turned right, he moved left, into me. I just couldn't believe it. It was a really stupid thing to do, just to throw away a good race like that."*

After Alboreto and Gabbiani had had their coming together, there was a lot less hysteria. The new Tyrrell driver had been happy enough to get onto the grid, and wasn't about to blow up over the incident with Gabbiani. *"Someone hit the back end of the car, I think it was Gabbiani,"* he explained quietly. *"He locked his brakes and slid into the back of me, puncturing the left rear wheel. It was a shame because I was eighth at the time and was heading for a reasonable result."*

Gabbiani's version was as follows: *"I got a bit sideways, but I think Alboreto turned in rather early. One of my front tyres was punctured against his car."*

G.P.





THE FILM OF THE RACE

Gilles Villeneuve made full use of his pole position. When the lights turned to green he went straight into the lead, while teammate Didier Pironi was only a couple of lengths behind him. But Gilles made the mistake of stopping for slicks, leaving Didier in the lead. Meanwhile Piquet had been climbing through the field after a poor start. He picked off those ahead of him one by one, and slowly drew in the leading Ferrari after two thirds distance. Pironi, his tyres lacking grip, could do nothing about Piquet, and the Brazilian overtook the Frenchman to score his second Grand Prix win at Imola.

1 - *The Ferraris both made excellent starts, unlike the Renaults. Behind the red cars are the two Williams...*

2 - *...but during the first lap, Jones hits Reutemann's car and damages his front wing.*

3 - *The two Alfa Romeos and de Cesaris's McLaren formed a battling trio during the early laps.*

4 - *Piquet started badly, but he's caught up well. He takes fourth place from Reutemann on the 15th lap, at the same time as Villeneuve pits.*

5 - *A couple of laps later Piquet catches Patrese who he'll eventually overtake on the 22cnd lap. Meanwhile, it's raining again.*

6 - *Piquet has one more driver to pass before he leads: Pironi. The Brazilian catches the Frenchman shortly after half distance, spends ten laps behind him, and then takes the lead on the 47th lap.*

7 - *Villeneuve and Pironi were naturally the local heros, but those on the rostrum were Piquet, Patrese (not pictured) and Reutemann.*

PRACTICE

It was the Renaults that dominated the first day of practice. René Arnoux set the fastest time. and Prost was third quickest, even though he blew an engine. Villeneuve's Ferrari was the meat in the Renault sandwich with second fastest time. This was surely an historic moment: three turbo-engined cars setting the fastest three times. Reutemann was the first of the non-turbo powered drivers in fourth place in front of Pironi. Both Renaults and both Ferraris were in the fastest five cars. Jones was sixth fastest having used both spare and race car during practice. Patrese followed, then Piquet who had fuel feed and handling problems. Keke Rosberg was an excellent ninth quickest on Avon tyres, a typically gritty performance from the Finn for whom things weren't going entirely right. Both Tolemans were in trouble with the heat on their first official appearance, and they were at the back of the grid.

Next day it was Ferrari's turn to dominate. Gilles Villeneuve set a superb time to take pole position, and promptly returned to the pits with a cloud of smoke billowing from his car. Didier Pironi had broken a turbo so he had to use the spare car, with which he set fifth fastest time. The Renault drivers were unable to maintain their previous day's form. Arnoux's engine broke just when it had done its mileage, while Prost had a turbo break in his race car, and then the same happened when he took over the spare. But the times set the previous day meant that they would start from the second row of the grid. Apart from Villeneuve, the man who really shone in this session was Carlos Reutemann who drove a perfect lap to put himself on the front row of the grid. Jones had both engine and gearbox trouble so he was back on the fourth row, having been bumped off the third row by Nelson Piquet who shared it with Pironi.

The non-qualifiers were Stohr, Daly, Lammers, Serra, Warwick and Henton, although the latter didn't take part in the second session because of engine trouble in the morning.

RACE

After two sunny days of practice came Sunday's rain. Although it rained only occasionnally in the afternoon, everyone started on wet tyres except Rosberg, Tambay and Surer who gambled on dries. Both Ferraris made superb starts, Villeneuve going straight into the lead while Pironi shot through from the third row to second place behind his teammate. Neither Renault got off the line well. Prost knew that his gearbox was faulty and within four laps he had retired to the pits.

The two Ferraris led the first lap in front of the two Williams, but Jones's front wing was askew having damaged it against his teammate's car when trying to pass. He pitted to have it changed on third lap. So the order on the first lap was Villeneuve in front of Pironi, then Reutemann, Jones, Patrese, Arnoux, Watson, Laffite, Piquet (who'd had a bad start), and Rebaque.

The two Ferraris began to pull away from the rest at the rate of a second a lap, while there were a number of incidents behind them. Watson had his nosecone knocked off when Arnoux cut across in front of him, the McLaren pitting on the fifth lap to have a replacement fitted. Laffite and Arnoux banged wheels on the sixth lap which caused the Talbot's retirement with a broken front suspension link, and Arnoux's car never handled the same thereafter.

It hadn't rained for some time and the track appeared to be drying. Villeneuve had an eight second lead over Reutemann when he decided to stop for slicks on the 15th lap. But two laps later, down came the rain again and Gilles had to pit to change back to wet tyres.

Pironi was left with a comfortable lead and seemed to be untroubled, although he had damaged a skirt somewhere. A few laps later, Piquet lay in second place. Slowly, he began to catch the Ferrari. Pironi's rear tyres were going off. Eight laps after half distance, Piquet was right behind Pironi, and began to try and get past. But the Ferrari driver countered every move by Piquet, and although the Brabham was faster in the corners and under braking, the speed of the Ferrari down the straights made overtaking almost impossible. But on the 46th lap, the Brabham finally passed the Ferrari, and Piquet soon pulled away. But Pironi was in more trouble and first of all Patrese overtook him, then Reutemann (who complained of bad vibration throughout the race) and then Rebaque.

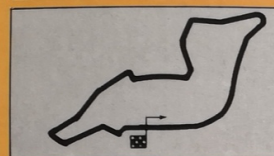
Piquet continued to take the chequered flag for the second time running, his greatest ever win, in front of Patrese, Reutemann, Rebaque, Pironi and de Cesaris. The latter passed Villeneuve in the closing laps and won his first World Championship point. Villeneuve had had to change tyres twice, but had fought back up to sixth place, only to suffer gear selection trouble in the last ten laps, and finally the clutch broke on the penultimate lap.

Watson and Tambay both proved to be very quick on the track, the latter proving to be just as quick as the leaders, but both had had to pit. Watson just pipped Tambay for tenth place on their final lap.

Imola statistics

SAN MARINO GRAND PRIX

Date : May 3, 1981
Circuit length : 3.132 miles
Race : 60 laps, 187.92 m
Conditions : showery
Attendance : 90,000 spectators



STARTING GRID

VILLENEUVE Ferrari 126 C 1'34"52	**REUTEMANN** Williams FW07/B 1'35"28
ARNOUX Renault RE 20/B 1'35"28	**PROST** Renault RE 20/B 1'35"57
PIQUET Brabham BT 49/C 1'35"73	**PIRONI** Ferrari 126 C 1'35"86
WATSON Mc Laren MP4 1'36"24	**JONES** Williams FW 07/B 1'36"28
PATRESE Arrows A3 1'36"39	**LAFFITE** Talbot Ligier JS 17 1'36"47
GIACOMELLI Alfa Romeo 179 C 1'36"77	**ANDRETTI** Alfa Romeo 179 C 1'36"91
REBAQUE Brabham BT 49/C 1'37"26	**DE CESARIS** Mc Laren M 29C 1'37"38
ROSBERG Fittipaldi F8 1'37"45	**TAMBAY** Theodore TY 01 1'37"54
ALBORETO Tyrrell 010 1'37"77	**JABOUILLE** Talbot Ligier JS17 1'38"14
CHEEVER Tyrrell 010 1'38"26	**GABBIANI** Osella FA 1/B 1'38"30
SURER Ensign N 180B 1'38"34	**GUERRA** Osella FA 1/B 1'38"77
SALAZAR March 811 1'38"82	**BORGUDD** ATS D4 1'39"07

Non qualified :

STOHR (Arrows A3) 1'39"11
DALY (March 811) 1'39"15
LAMMERS (ATS D4) 1'39"41
SERRA (Fittipaldi) 1'41"11
WARWICK (Toleman TG 181) 1'43"18
HENTON (Toleman TG 181)

TIMES IN UNOFFICIAL PRACTICE

FRIDAY MORNING		SATURDAY MORNING		SUNDAY MORNING	
Reutemann	1'37"333	Villeneuve	1'35"510	Villeneuve	1'49"372
Prost	1'37"338	Prost	1'35"774	Patrese	1'50"233
Villeneuve	1'37"962	Jones	1'36"298	Pironi	1'50"370
Arnoux	1'38"045	Patrese	1'36"717	Prost	1'50"438
Cheever	1'38"461	Piquet	1'36"998	Giacomelli	1'50"452
Andretti	1'39"007	Giacomelli	1'37"159	Piquet	1'50"675
Jones	1'39"238	Reutemann	1'37"556	Jones	1'50"676
Laffite	1'39"377	Pironi	1'37"606	Reutemann	1'50"681
Piquet	1'39"448	Laffite	1'37"783	Laffite	1'50"779
Rosberg	1'39"972	Watson	1'37"813	Rebaque	1'50"793
Guerra	1'40"055	Cheever	1'37"864	Arnoux	1'51"073
Gabbiani	1'40"070	Andretti	1'37"912	Cheever	1'51"248
Alboreto	1'40"620	Arnoux	1'38"022	Gabbiani	1'51"314
Rebaque	1'40"895	De Cesaris	1'38"097	Tambay	1'51"436
Surer	1'40"958	Jabouille	1'38"424	Watson	1'51"769
Giacomelli	1'41"131	Tambay	1'38"491	Andretti	1'51"798
Serra	1'41"306	Rebaque	1'38"618	Surer	1'52"402
Tambay	1'41"369	Guerra	1'38"928	Rosberg	1'52"742
Watson	1'41"672	Surer	1'38"982	Guerra	1'53"013
Daly	1'41"956	Alboreto	1'39"103	De Cesaris	1'53"165
De Cesaris	1'42"417	Salazar	1'39"124	Salazar	1'53"565
Salazar	1'42"608	Gabbiani	1'39"311	Borgudd	1'53"746
Patrese	1'42"828	Daly	1'39"806	Jabouille	1'53"918
Borgudd	1'43"937	Lammers	1'39"958	Alboreto	1'55"506
Stohr	1'44"355	Borgudd	1'40"266		
Lammers	1'48"482	Serra	1'41"515		
Henton	1'49"598	Rosberg	1'41"847		
Jabouille	—	Stohr	1'43"648		
		Warwick	1'44"215		
		Henton	1'46"234		

THEIR FASTEST RACE LAPS

	Time	Lap n°
Piquet	1'48"83	8
Patrese	1'49"41	10
Reutemann	1'49"75	51
Rebaque	1'49"18	45
Pironi	1'49"17	10
De Cesaris	1'50"26	34
Villeneuve	1'48"06	46
Arnoux	1'50"10	14
Surer	1'50"11	49
Watson	1'48"37	47
Tambay	1'49"56	48
Jones	1'49"75	34
Borgudd	1'50"88	45
Jabouille	1'51"49	33
Salazar	1'51"83	13
Alboreto	1'50"95	9
Gabbiani	1'50"98	15
Giacomelli	1'51"23	10
Cheever	1'50"59	9
Andretti	1'51"11	13
Rosberg	1'53"86	14
Laffite	1'50"34	6
Prost	1'57"39	2

OFFICIAL PRACTICE TIMES

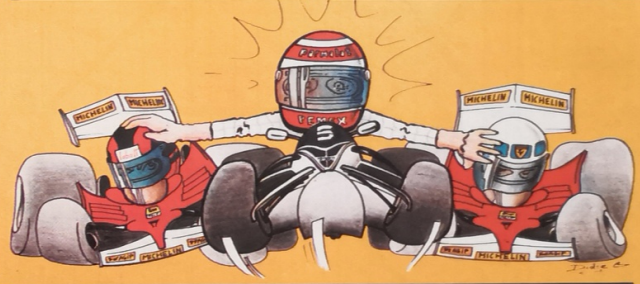
	1st session	2cnd session
Villeneuve	1'35"576	**1'34"523**
Reutemann	1'35"844	**1'35"229**
Arnoux	**1'35"281**	1'35"292
Prost	**1'35"579**	3'58"089
Piquet	1'37"417	**1'35"733**
Pironi	1'36"168	**1'35"868**
Watson	1'37"639	**1'36"241**
Jones	1'37"061	**1'36"390**
Patrese	**1'36"280**	1'36"317
Laffite	1'38"908	**1'36"776**
Giacomelli	1'39"372	**1'36"776**
Andretti	1'37"587	**1'36"919**
Rebaque	1'38"822	**1'37"264**
De Cesaris	1'38"019	**1'37"382**
Rosberg	**1'37"459**	1'37"906
Tambay	1'39"215	**1'37"545**
Alboreto	1'39"341	**1'37"771**
Jabouille	**1'38"140**	1'38"702
Cheever	1'38"369	**1'38"266**
Gabbiani	1'39"245	**1'38"302**
Surer	**1'38"341**	1'38"488
Guerra	1'39"799	**1'38"773**
Salazar	1'39"161	**1'38"827**
Borgudd	1'41"196	**1'39"079**

PROVISIONAL WORLD CHAMPIONSHIP POSITIONS

Position/Driver	UNITED STATES WEST	BRAZIL	ARGENTINA	SAN MARINO	Total
1. Reutemann	6	9	6	4	25
2. Piquet	4	—	9	9	22
3. Jones	9	6	3	—	18
4. Patrese	—	4	—	6	10
5. Prost	—	—	4	—	4
6. Andretti	3	—	—	—	3
De Angelis	—	2	1	—	3
Surer	—	3	—	—	3
Rebaque	—	—	—	3	3
10. Cheever	2	—	—	—	2
Arnoux	—	—	2	—	2
Pironi	—	—	—	2	2
13. Tambay	1	—	—	—	1
Laffite	—	1	—	—	1
De Cesaris	—	—	—	1	1

CONSTRUCTORS CUP

1. **Williams** 43 pts
2. **Brabham** 25 pts
3. **Arrows** 10 pts
4. **Renault** 6 pts
5. **Alfa Romeo, Ensign, Lotus** 3 pts
8. **Tyrrell, Ferrari** 2 pts
10. **Theodore, Talbot, Mc Laren** 1 pt



RESULTS

1. PIQUET	Brabham BT 49/C	60 laps in 1h51'23"97, 101.203 mph
2. PATRESE	Arrows A3	4"5 behind
3. REUTEMANN	Williams FW 07/B	6"3 behind
4. REBAQUE	Brabham BT 49/C	22"8 behind
5. PIRONI	Ferrari 126C	25"8 behind
6. DE CESARIS	Mc Laren M29/C	1'06"6 behind
7. VILLENEUVE	Ferrari 126 C	1'41"97 behind
8. ARNOUX	Renault RE 20/B	one lap behind
9. SURER	Ensign N 180/B	one lap behind
10. WATSON	Mc Laren MP4	two laps behind
11. TAMBAY	Theodore TY 01	two laps behind
12. JONES	Williams FW 07/C	two laps behind
13. BORGUDD	ATS D4	three laps behind

Fastest lap : Villeneuve 1'48"064, 104.328 mph

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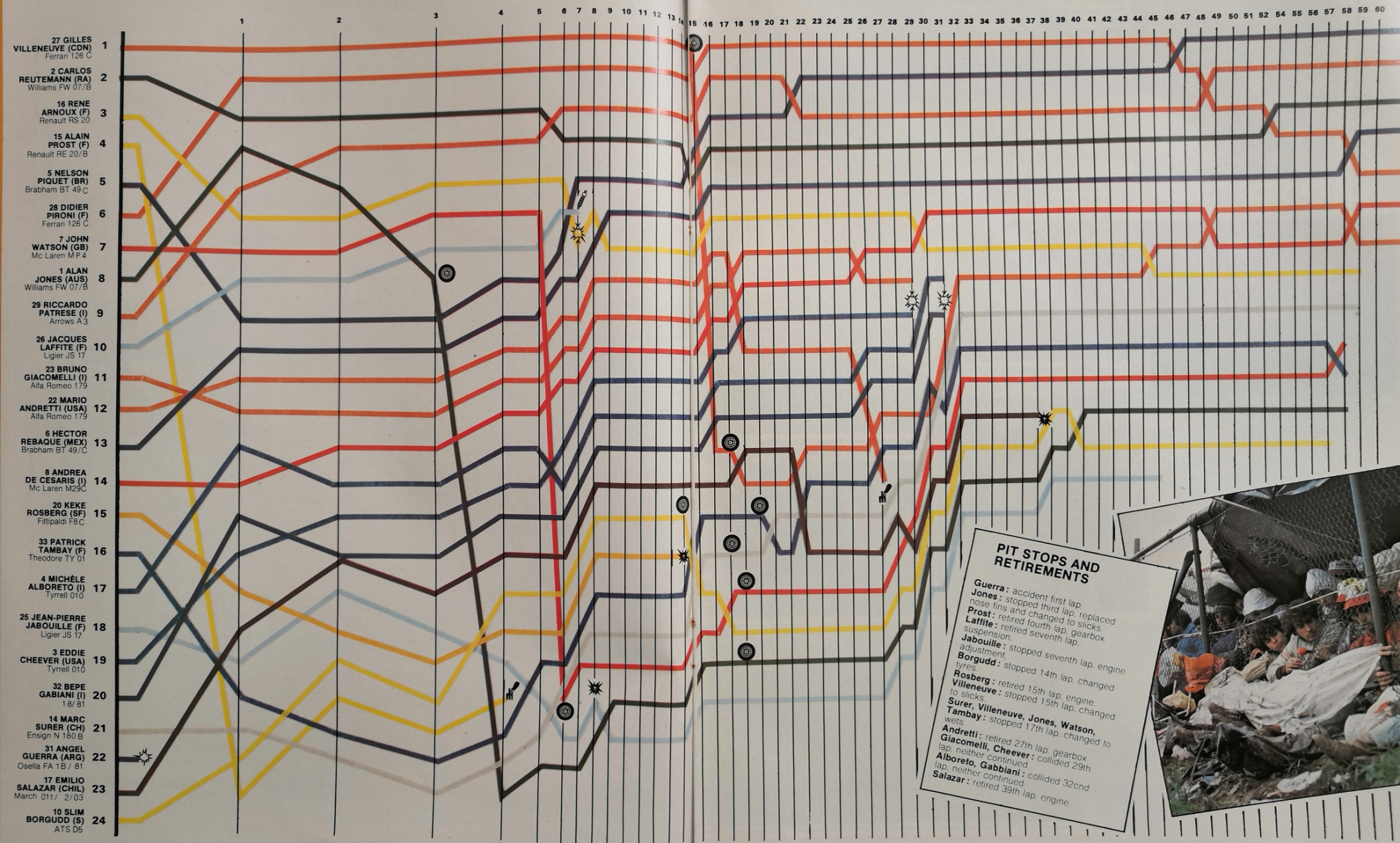


PIT STOPS AND RETIREMENTS

Guerra : accident first lap.
Jones : stopped third lap. replaced nose fins and changed to slicks.
Prost : retired fourth lap. gearbox.
Laffite : retired seventh lap. suspension.
Jabouille : stopped seventh lap. engine adjustment.
Borgudd : stopped 14th lap. changed tyres.
Rosberg : retired 15th lap. engine.
Villeneuve : stopped 15th lap. changed to slicks.
Surer, Villeneuve, Jones, Watson, Tambay : stopped 17th lap. changed to wets.
Andretti : retired 27th lap. gearbox.
Giacomelli, Cheever : collided 29th lap. neither continued.
Alboreto, Gabbiani : collided 32cnd lap. neither continued.
Salazar : retired 39th lap. engine.

lap - Giro per giro - Runde um Runde - Tour par tour - Vuelta a vuelta - Ronde na ron

Postcard from Imola

When it's mealtime in Italy, everything grinds to a halt - including the Alfa Romeo team

Gilles Villeneuve is well-organised when it comes to Grands Prix: here he mounts a Vespa with his daughter, but he also has his own motorhome and helicopter available

There were some bodies beautiful in the pits acting in official capacity; they weren't female nor fitted to cars...

Giacomo Agostini, the former world motor-cycle champion races neither bikes nor cars these days

Jan Lammers and Evelyn: one of the nicest couples on the Grand Prix scene

Toleman truckie Bill Box found his transporter much admired

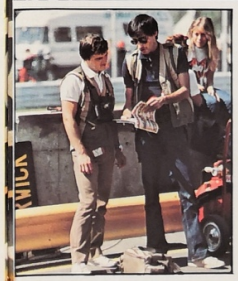
A fine line-up on the grid

Oversteer, but not surprisingly - there's no load on the back

Now try making a hat like that out of this magazine

It looked like a great Grand Prix on n interesting circuit with a superb crowd - on an interesting - what a pity it rained

Girls and Grands Prix are synonymous

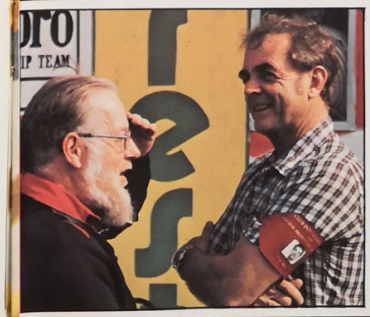


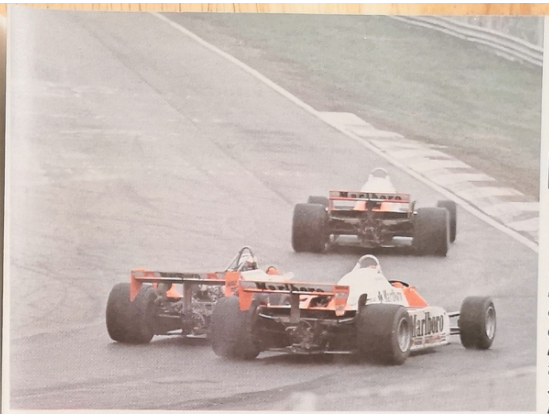
searching for inspiration?

Two famous men in motor racing: former World Champion Phil Hill and Denis Jenkinson of Motor Sport, much in demand in Italy to recount the story of his famous Mille Miglia win with Stirling Moss

Didier is most certainly well-known in Italy. It seems that most of his cousins have started restaurants on the Adriatic coast

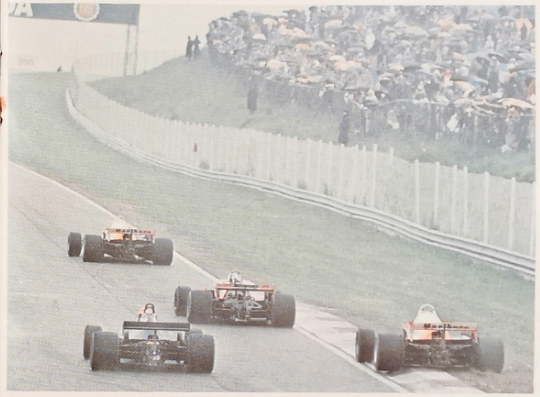
The Formula Fiat Abarth cars fitted with Lancia Beta engines





ALARUMS AND EXCURSIONS

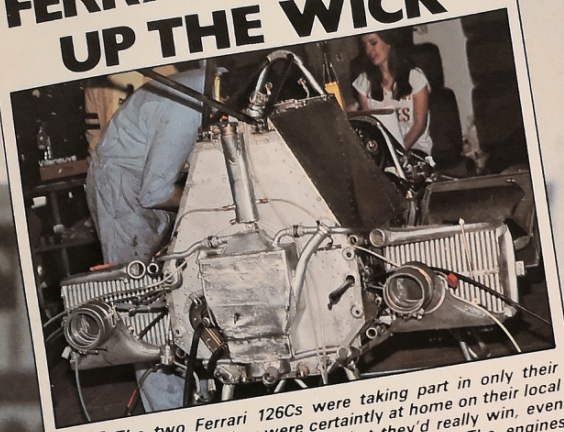
Rain, during a race, frequently causes incidents because of the slippery surface. The Grand Prix of San Marino, the second race to be held in the wet this year, was no exception. Salazar went off twice, Andretti was pushed off onto the grass by de Cesaris, Watson lost his nosecone on Arnoux's Renault, while slides were commonplace. Pironi had tyre trouble which caused him to drop back. (Photos: SAM/Jacques Cochin - DPPI/Eric Vargiolu - A - P/Bernard Asset)



PROGRESS AT LAST

It wasn't a very good weekend for Renault, nor Alfa Romeo. Ferrari may have had a couple of competitive cars, but none of the other big constructors had any luck. Opposite, Prost has his car checked as he leaves the pits, but in spite of a good practice, neither Renault shone in the race, as was the case with Alfa Romeo.
(Photos: DPPI/Eric Vargiolu - A+P/Bernard Asset)

FERRARI: TURNS UP THE WICK



The two Ferrari 126Cs were taking part in only their fourth race. They were certaintly at home on their local track, but no one thought that they'd really win, even though Villeneuve started from pole position. The engines weren't particularly reliable during practice, some didn't think the chassis was really up to it, and everyone knew that the boost had been turned up to get Villeneuve on pole position. But the race was to prove many wrong: the Ferraris were the quickest cars in the race, though still less than perfectly reliable.
(Photos: A + P/Bernard Asset)

OSELLA: GOOD AND BAD

On Saturday evening, Enzo Osella was the happiest of men, because both his cars, driven by Gabbiani and Guerra, were to start the Grand Prix the next day. They'd tried to qualify in three Grand Prix so far this year, but only Gabbiani started at Long Beach. Now they were both to start in Osella's home country. Modifications made to the two cars since South America had obviously borne fruit.

But on Sunday evening, Enzo Osella was the unhappiest of men. He hadn't asked for much, maybe one car at the finish, and with lots and lots of luck, a point in the championship. But instead the Osella mechanics were loading two damaged cars into the Osella truck. Guerra went off into the guardrail when he was hit by Salazar just after the start. The car was destroyed and Guerra suffered a broken leg. Gabbiani tangled with Alboreto shortly after half-distance, putting an end to the Italian team's hopes.

(Photos: SAM/Jacques Cochin - DPPI/Eric Vargiolu)

RICCARDO PATRESE

Riccardo Patrese has been a different man since the start of this year's Grand Prix season. He's more open, more relaxed and seemingly more happy with his life. That's perhaps because he feels that a weight has been taken off his shoulders. Forgotten are his frequently fruitless drives in the middle of the field, the fact that he was driving for a second-rate team, and his controversial reputation. Riccardo has left all that behind. After four years of waiting, he now has a competitive car with which he can pick up top three positions. But it's not really that Riccardo himself has changed, it's his life that is different.

by Eric BHAT

You appear to be a happier man this year, more relaxed. Why is that?

The main reason is that Riccardo Patrese is finally driving for a team that provides him with a competitive car. So not surprisingly, that fact affects me, my moods and morale. I feel a lot happier, I feel that I'm actually smiling more.

But I'm just as pleased to have been surprised like this. I was rather depressed at the start of the season. During the off-season, I tried to find a drive with another team but failed and rather unwillingly, had to resign for Arrows. Frankly, I didn't expect things to have changed. It was more than I could hope for. For three years Arrows have been trying - in vain - to build a competitive car. And for various reasons they've failed. But I knew that the potential was there. And suddenly this year we're competitive. When you're expecting things to go badly, or just a rather average performance, and then everything goes really well, it's such a surprise that of course one tends to feel great. I've been very happy with my races so far this season. I've felt that I've proved something, particularly to those people who'd written me off.

You didn't really want to stay with Arrows, did you, you wanted a change? But did you really have any other opportunity but to stay with them?

I talked with a lot of teams, but for one reason or another, I never managed to come to an agreement with any of them. In fact it was the same with Arrows, because the team had lost sponsorship and was having trouble finding finance. I was told that they might not be able to keep me in the team. For a while it looked as though I might not get a drive anywhere, let alone with a number one team. Fortunately the Ragno tile company offered me support which at least guaranteed me finding a drive. Finally we decided on Arrows again, and it's turned out really well, especially considering the alternatives at the time.

Has the atmosphere within the team changed now that the car is competitive?

Yes, it's completely different. Last year we just didn't seem to be getting anywhere. Everyone was working hard yet we couldn't do any better. We felt powerless to improve the situation. By the end of the season we were all rather low. When things aren't going well, everyone, including the engineers, mechanics and even drivers tends to let things go. Of course you simply can't do well when people feel like that.

We started this year with a new sponsor, Ragno, and the atmosphere was immediately different. Everyone worked harder, not simply because the car turned out to be competitive, which in itself was encouraging, but because Ragno almost brought pressure to bear on the team. They pushed us and encouraged us to do better.

I must admit that Dave Wass has done a very good job. Everything that he's done to the Arrows A3 has been in the right direction. He hasn't taken a wrong turning, the car's made nothing but progress. We hadn't done a lot of testing prior to Long Beach, yet the car was immediately quick which is a credit to Dave.

It's strange, isn't it, that when Dave Wass and Tony Southgate worked together at Arrows, their cars weren't very competitive? Yet at the start of this season, when they were working for separate teams, their individual cars worked well. Why do you think this was?

It's hard to explain. I rated Tony highly, I thought he was good. We worked well together and I felt close to him, I knew just how good he was. But you're right, both the Arrows and the Theodore were competitive at the start of he season.

Our main problem last year was that our skirts never worked properly. Well that's not a problem this year, and without skirts, it means that we have other areas in which to spend money. That's one of the reasons that we've made progress. As people, there's one particular difference between Tony and Dave. Tony is resolute in his ideas, he believes in them one hundred per cent and it's hard to change his mind. That's not such a bad thing in some ways because you have to believe in what you're doing in this life. Dave, on the other hand, knows what he wants to do, but he tends to be slightly more broad-minded about things. He looks around at what other people are doing and he's able to admit that perhaps his ideas aren't exactly right. He takes a

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little of bit from other people's cars and can adapt that to his own ideas.

You and Tony Southgate were good friends. Are you sorry he's gone?

Yes, but I'm still great friends with him. I worked for three years with him, and I tend to be slightly sentimental about things like that. We worked well together and I was sad that he left.

Have you found that now you're a front runner that you're popular again?

Yes, but then it's always like that. Everyone wants to talk to you, congratulate you and ask questions. That's life. When you're a success, people want to be associated with you, people want to be associated with success. But when you're down, no one wants to know you.

Does the change in your life make any difference to the way you drive? Do you think you drive better when you're more determined?

Maybe, but it's not a conscious feeling. I think that over the past few years, I've always driven at my best. I've never felt less determined because the car hasn't been competitive. But when you are driving a competitive car, it seems to draw you out that little bit extra, and one drives that much better without really realising it. It makes no difference whether it's intentional or it just happens, if you're feeling good, you drive better even though you may not realise it. You can't put your finger on it, and it isn't simply a matter of speed. It's easier to drive a competitive car. Last year, at Brands Hatch for instance, I had to try incredibly hard just to qualify. It was a lot easier getting pole position at Long Beach. Those are two totally different situations, and the driver has very little influence on the outcome, everything depends on the organisation behind him.

Now that you're driving a competitive car, you must be looking for your first Grand Prix win?

Yes, absolutely. I've finished in every position between second and tenth, all I need now is a first to complete the set. I'm doing everything I can to win, but I'm not driving for Williams, Brabham, Renault or Ferrari. They have the finance to improve their cars and it's not easy to remain as competitive. We have a limited budget and we can't spend more than that. I could have won at Long Beach and I was really disappointed not to have done so, because I am not sure that the opportunity is going to present itself again in the near future. I'm driving for Arrows, not Williams. Their future is safe, mine isn't.

But if Arrows keep going the way they have since the beginning of the season, then surely they must be considered among the best cars, and the team too?

I think that we should be in a position to win a Grand Prix this year. I'm always up towards the front, I always start from the front rows of the grid. Sometimes it's better than others. I hope I'll have another crack at it before the end of the season. I feel that my Grand Prix career hasn't been a lucky one, so that it's about time that luck turned my way. I should already have won three Grands Prix. But because I've been unlucky, I haven't won a single race. First of all there was the South African Grand Prix in 1978, then the Swedish race the same year: I finished second, behind Lauda's Brabham fan car which was subsequently banned. So that should have been my first or second win. And then there was this year's Long Beach race. So it's time I struck lucky.

How did you feel when you retired at Long Beach this year? Did you feel better or worse than in South Africa in 1978 for example?

I was less disappointed, a lot less disappointed. I was actually very happy after I retired at Long Beach, because after all the problems I'd been through trying to get a drive, I realised that the car was very good. I'd set pole position time for the first time in my Formula One career, I'd led for 30 laps and I'd proved to everyone that I was still competitive. I was even more happy because I didn't expect to be so competitive.

I was still young when I led in South Africa in 1978. I'd only been in Formula 1 for a short while and I still believed that it was easy to win a Formula 1 race. I hadn't any problems in Formula 1 at that time. I still believed that life was easy in Formula 1 and I didn't realise how difficult it was to win a Grand Prix. That came later, and I went through a difficult period, driving uncompetitive cars. That's why I was happy at Long Beach, why I derived some happiness from that race, in spite of retiring. I was less disappointed than at Kyalami three years earlier. At that time, I took things at face value and didn't appreciate the underlying plus and minus points which I do now.

Does this upturn in your career mean that you've forgotten all the problems you've had in Formula 1 your bad reputation for instance?

All my Formula 1 problems stem from the accident at Monza in 1978. My bad reputation was born there. There was an enormous campaign against me and it just seemed that I must be the guilty one who caused that accident. I was simply the person to blame for all subsequent incidents. I was the man that other drivers blamed, and they all ganged up on me and banned me from taking part in the next race at Watkins Glen. Since then most of them and various other drivers have apologised to me because now they realise that I wasn't to blame. Their attitude in America was inexcusable, the whole affair should never have happened. So it's hard to forget, it's too big to forget. And there's still a court case to take place over that Monza accident. The story isn't over yet, so I can't forget it.

But as time passes, surely it means less to you?

I've always had a clear conscience about the accident. It's never affected my morale. I may be a hard driver in a race, but that's not such a bad thing. Most other drivers are the same. It's not that I'm the villain and the others are all angels. Everyone is hard during races. I may have been a little too hard at first, but I think I've found the right level.

Now that you've found the right compromise and you have enough experience, do you think that you're capable of winning the World Championship?

The most important factor in winning the World Championship is the organisation behind a driver. If you have the best car run by the best team at the right moment, then you can become World Champion. I've now done more than 50 Grands Prix and I reckon that I would recognise the right moment if was in the right position. I feel that I'm competitive enough to take advantage of those conditions.

You got on very well with your former teammate Jochen Mass last year. Do you miss having him in the team?

Of course, yes. I'm very disappointed he's not in our team this year, or at least in Grand Prix racing. As a person, Jochen is the greatest guy I've met in Formula 1. I hope he'll be back soon. I would have liked him to stay in the team bit it simply wasn't possible.

Eddie Cheever has said that it's impossible to be really friendly with another Grand Prix driver, but your friendship with Jochen seems to contradict that statement.

One can strike up a decent friendship with people like Jochen. But what Eddie was saying is true. It's hard to make friends with people in Formula 1 because they're rivals. We known one another, but none of us are very close. When a driver leaves a circuit, he goes home. We don't mix a lot.

These days you're probably the leader of the new wave of younger Italian drivers. What do you think of the fact that there are so many of your fellow-countrymen in Formula 1?

We're in a good position at the moment. A number of quick new Italian drivers have emerged in the last few years. Two years ago, everyone was talking about the "French team", but now there's an Italian team as well and the contest between them is going to be very interesting. I don't think that the Italians are going to be any worse off than the French, we're both going to be just as good.

It must be important for you to prove that you're the best of the Italians.

Everyone wants to be first, in whatever situation. But there are two points that I'd like to make. The first is that I want to be the best in the world, that's what competition is all about. And if I can't be the best in the world, then I certainly want to be the best of the Italians. That's no big deal in itself, but the press are always making comparisons and saying who's best and who's worst. That's fine for the public, but not for the drivers. Theoretically, it shouldn't be a special worry for me to be in front of de Angelis because he's Italian, but because of articles published the next day, it becomes important.

What do you think of your new teammate, Siegfried Stohr?

As a person, I like him a lot. We get on very well together. But you must realise that as a driver, he arrived in Grand Prix racing having scarcely tested at all during the winter. He hadn't had time to get used to the car before the first race. Formula 1 is very hard work, it takes time to get used to it. I'm very sorry that Siegfried has twice failed to qualify, because I think he's perfectly capable of qualifying. Furthermore, he seems to have a fine understanding as to how the car works. Even so, he needs more experience. You can't simply apply the same rules learnt in Formula 2 and 3 to Formula 1. Sometimes you have to forget all that and try something which could appear stupid at first in order to improve the cars. If you're too logical, you can miss the greatest opportunity to improve the car. It's hard to understand, even puzzling to start off with, but it comes with experience.

You always seem to spend a long time talking to your team after practice. Is that because you're interested in the technical aspects of Formula 1?

It's the best part of Formula 1. After all, it's the most technical and sophisticated class of motor racing. I think most of the drivers appreciate that. It's much easier if you concentrate hard on the development of Formula 1 and the behaviour of the car. If all that is in your head when you're driving, then you can be more analytical. You can pinpoint what's going on immediately and quickly diagnose and work out a remedy. That's also experience, it comes progressively.

Do you fell that you're currently in the most exciting stage of your career?

I really enjoyed the first part of the 1978 season, up to the German Grand Prix. By the end, because of our problems with Shadow, we had had to change the car and wait until the start of the next season to have a reasonably competitive chassis. I feel now as I did in 1978, when I first drove in Formula 1. I'm enjoying Grand Prix racing. I'm getting on better with the other drivers and journalists. I feel much happier generally speaking. □

TOLEMAN: FACING UP TO THE BIG TIME

Derek Warwick is Toleman's number two driver. While Brian Henton already has Formula 1 experience, Imola was Warwick's first taste of F1 racing.

Since the departure of BRM from the F1 scene, every British-based Grand Prix team has relied on Ford-Cosworth power. That situation changed at Imola, where two exciting Candy-Toleman F1 turbocars were presented by the reigning F2 championship team. With a staff of just over 30, but an unlimited supply of talent and enthusiasm, the newcomers brought a fresh note to racing. And despite their failure to qualify for the San Marino GP, there is no mistaking the ambitions of the men from the Toleman Group.

by Mike DOODSON

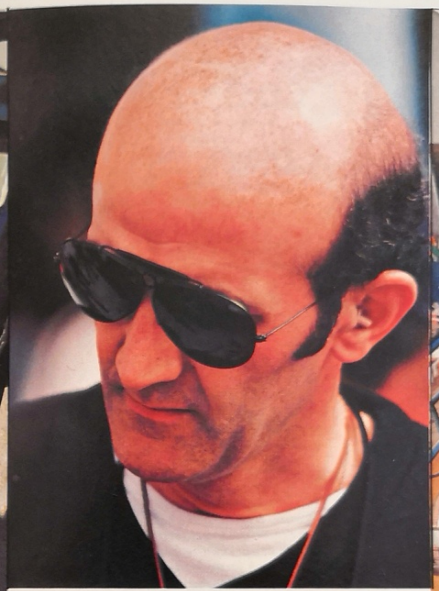
The Toleman team brought its cars to Imola for their first Grand Prix. The principals in the team are Alex Hawkridge, Brian Henton and Rory Byrne (above left), Toleman managing director, number one driver and designer respectively. Also making his F1 debut was engine designer Brian Hart (above right).

There is a better than even chance that anyone in the United Kingdom who buys a new car has just done business with the Toleman Group of companies. It's most unlikely of course that the customer, preoccupied with the thrill of settling himself behind the wheel of his expensive new toy, will even know the name of Toleman. But each year around 800,000 British motorists have a Toleman company to thank for bringing their shiny new car from its factory or port of entry to the showroom of the dealer.

In charge of the day-to-day business of making sure that all those cars get to their destinations and the waiting customers is a quietly-spoken Englishman named Alex Hawkridge, joint Managing Director of the Toleman Group at its administrative headquarters in Brentwood, Essex. Thick glasses and a neatly trimmed beard tend to conceal the real face of Hawkridge. But he is the man with the awesome task of ensuring that the Toleman Group stays prosperous. When you consider that its latest project is nothing less than Formula 1, with an all-British turbocar designed to take on giants like Renault, Ferrari and Alfa Romeo at their own game, it is immediately clear that Hawkridge and the Toleman Group are not just having fun.

Motorsport and Toleman have been associated for almost ten years, initially on a modest scale. Ted Toleman's racing career took him to Le Mans (where he competed in a 2-litre Lola), while Hawkridge spent a short period as a club driver in Formula Ford. However, although Toleman sponsorship of various club racing machinery has been a part of the British scene for several years, it wasn't until the group moved into Formula 2 with South African driver Rad Dougall in 1978 that it became a serious international force.

The name hit the headlines in a big way at Thruxton's Easter meeting two years ago. The team's new Ralt chassis were not ready to race, so Dougall was obliged to use his year-old Toleman March



The Tolemans are powered by a turbocharged version of Brian Hart's successful 420R Formula 2 engine. The four cylinder, single turbo unit gives 525 bhp. Hart (opposite) is a former driver himself. He raced in actor Peter Sellers's F3 team, and then moved on to the wooden F2 Protos. His own engine designs later powered Mike Hailwood's Matchbox Surtees to victory in the European F2 championship of 1972. Last year Hart again won the F2 championship, his engines powering Henton's Toleman to victory and Warwick's similar car to runner-up position. Although Rory Byrne had provided space at the rear of the F1 Toleman for different intercooling solutions, he has since redesigned the back end of the car to accomodate more intercooling.

for the Easter classic. The combination of his neat driving and a reliable chassis gave him a resounding victory.

Having been almost overlooked after years as an underfinanced privateer, Brian Henton had just been co-opted on to the Toleman team, and once the Ralt chassis had been developed it was Henton who became the more successful driver. By the end of the year the experienced man from Derby was within an ace of stealing the European title from Marc Surer. Had it not been for a well-publicised incident at Enna, Henton would have taken the championship before the end of the year. He again went off the road while leading Surer at Donington in the deciding final round, though the team admits that this was not so much a driving mistake by Henton as an engineering decision to gamble on an untested new type of brake pad material.

By the end of that exciting season, the Toleman F2 team built up by Hawkridge already included some outstandingly talented people. One of the most important was Rory Byrne, an ambitious engineer from South Africa who less than two years earlier had been designing the Royale Formula Ford cars driven by Rad Dougall. When Hawkridge offered Byrne the opportunity to design and build his own F2 chassis for a flat-out assault on the European championship, Byrne seized it with both hands. Seeing the importance of tyres, Hawkridge had reached an agreement for Pirelli technicians to undertake some winter testing with the team's Ralts. For 1980, the Italian company gave the Toleman cars priority with its metal radial racing tyres.

The results were immediate. Using engines supplied by ex-Cosworth engineer Brian Hart, the two Pirelli-shod Tolemans of Henton and his team mate Derek Warwick, a former European Formula Ford champion, swept aside all opposition from March and other makes to finish the season with a convincing 1-2 in the series.

Before the Formula 2 season was over, there were reports that Toleman was considering a move into Formula 1. Hawkridge had been quick to spot the potential in his team, and Byrne was understandably keen to start work on a suitable chassis. When the word was finally given in November for work to go ahead, Byrne was ready with plans that incorporated new materials not only for the chassis but also for the wheels and brakes.

It was the engine, however, which presented Hawkridge with the most difficult challenge. *"Perhaps because of all the trucks which we maintain, I was well aware of the value of turbocharging,"* he explains. *"I therefore approached Brian Hart about the possibility of making a turbocharged version of his four-cylinder Formula 2 engine.*

"Right at the outset, Brian said that we should spend at least a year testing before we even thought about racing a turbocharged engine. But that isn't realistic: we need sponsors, and we need to go racing." Hart remained cautious, though he agreed to start work on the project. This in itself was a compliment to the abilities of the Toleman engineers, for Hart has deliberately avoided the temptation of involving his company in F1 engine development for a period of more than ten years.

It's difficult to envisage the sort of research and funds which are necessary to make a competitive racing turbo. It took giant Renault 28 Grands Prix to win a race with their 1.5-litre V6, and it is evident that Ferrari has spent an unprecedented sum of money to reach a competitive level with his current 126C V6 unit.

"We don't have a massive development budget for our engine," says Hawkridge. *"Up to now, Brian's put a lot of his own money into it, and I've invested a lot of my personal savings... so obviously we've all got faith in it. Fortunately, so far the decisions we've made have proved to be the right ones. I think it must be unique in the history of turbocharged engines that we've got as far as this without blowing up a single engine.*

"Initially, we were developing a twin turbo version of the Hart engine. We expected to have power that was comparable with a DFV, ie around 500 horsepower, with similar torque. In fact, the torque was better and we had the horsepower we were looking for. But because of the size of our car - which has a wide fuel tank that needs a lot of power to get it down the straights reasonably quickly - we decided to go for a single turbo layout in the search for more power. It's already shown between 550 and 580 horsepower on the brake, and as installed in the car it's giving about 525.

"The main problem now is to get our intercooling right. That's not easy, because we have found that the installation suffers from being mounted in one compartment at the back of the car. For that reason, we're already building a new car which we hope to have ready for Jarama. It will have different aerodynamics, with relocated intercoolers using the airflow further forward in the chassis.

"Even before we came to Imola, we didn't expect to qualify, because we knew we had the intercooling problem. Nevertheless, we had commitments not only to Candy, our main sponsor, and to SAIMA, our secondary sponsor, but also to FOCA and FISA. In fact, just getting here has been a little victory for us, because our boys have been working 18 hours a day since Christmas, virtually without any time off, to get the two cars built."

Despite the inevitable disappointments, the Toleman mechanics under their manager, Roger Silman, together with Byrne, Hart and Hawkridge, were glad to have made the effort. They returned to their racing headquarters in Oxfordshire with some valuable experience, and with the comforting knowledge that not one of their engines had blown up.

"There's no doubt in my mind that if we'd had "English" conditions of weather here, we would have qualified," says Hawkridge. *"But that isn't the point. We have got to come to terms with the problems, so the sooner we can meet them the sooner we can face up to them. It's a challenge, but we are ready to face it."*

□

RISING RATE OF SUSPENSION INTEREST

After Nelson Piquet's runaway Argentina Grand Prix win, it was only to be expected that a number of teams would arrive at Imola with a system of lowering the car's bodywork, similar to that on the victorious Brabham. Indeed, the Brabham men themselves took their arrangement one step further, while new systems appeared from Williams, ATS, Fittipaldi, Ligier, Arrows, Tyrrell and Osella. Even though the suspension theory was subsequently judged to be legal, not all th teams used variable height suspension, because in some cases there was a great deal more work to be done before it was working satisfactorily. But the fact that the flexible skirts were judged illegal did nothing to help designers and engineers to perfect various solutions.

by Giorgio PIOLA

Most of the other teams had taken the simple step of copying the Brabham system as used in Argentina. This comprised four interconnected pneumatic cylinders, but these tend to create complications because they affect one another as well as working with one another. This type of suspension was fitted to the Tyrrell, Williams, Fittipaldi and Arrows cars, at least when they arrived at Imola.

Talbot/Ligier and Osella, however, had cars with rather more original systems. Osella's was a very different system to the others. Engineer Valentini had mounted four completely independent pneumatic cylinders to lower the Osella's bodywork. The cylinders worked neither with one another, nor with the normal suspension. Even though the system was judged to be legal, the team dismantled it before practice began. Talbot/Ligier weren't giving away much about the system on the two JS17s. It was thought that it operated by servo connected to and reacting with the engine's oil pressure.

Political observers within Grand Prix racing expected the Italian scrutineers to be very thorough. This was as much for the sake of those within Formula 1 as those on the sidelines. It was generally felt that everyone wanted to see some stability in the rules, and we reckon that the scrutineers did a good job. If the same group of scrutineers did all the races, there would be a lot less political trouble.

The chief scrutineer was engineer Cadringher who works with Aeritalia, and whose main job is to do with the tri-nation Tornado fighter project. On his recommendation, scrutineers simply declared the flexible skirts used in conjunction with hydro-pneumatic suspension to be unacceptable. The skirts on the Brabham in Argentina appeared to be sucked under the side pods by ground effect, the outer surface rubbing slightly on the ground. Because these skirts were flexible, they could absorb any lowering of the car.

But the scrutineers banned the flexible skirts, saying that they had to be rigid. This made things much more difficult, because while a hydro-pneumatic suspension system was called on to lower the car as close to the ground as possible, the bodywork couldn't actually touch the ground ever, because if it did, it would simply break up. This happened to a number of teams and that caused them to abandon the use of the system. Only Brabham, Fittipaldi, and Talbot/Ligier cars were fitted with hydro-pneumatic suspension for the race. □

BRABHAM'S HYDRO-PNEUMATIC SUSPENSION SYSTEM IN ARGENTINA

1-2 bleed nipples for adding liquid to the hydraulic shock absorbers

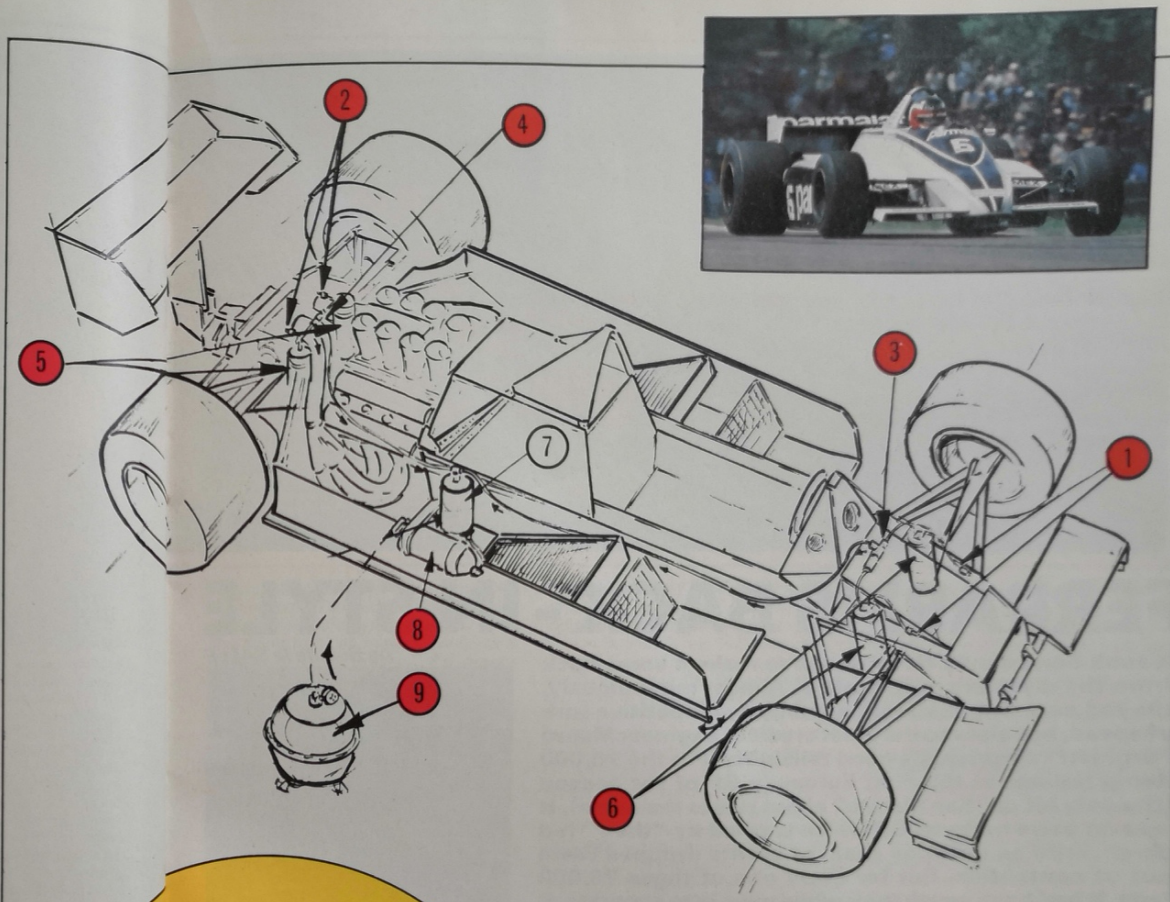
3-4: T-junctions in hoses linking the two front and rear shock absorbers

5-6: combined spring/shock absorber working with hydro-pneumatic cylinder

7: twin chamber bottle with compressed air and liquid

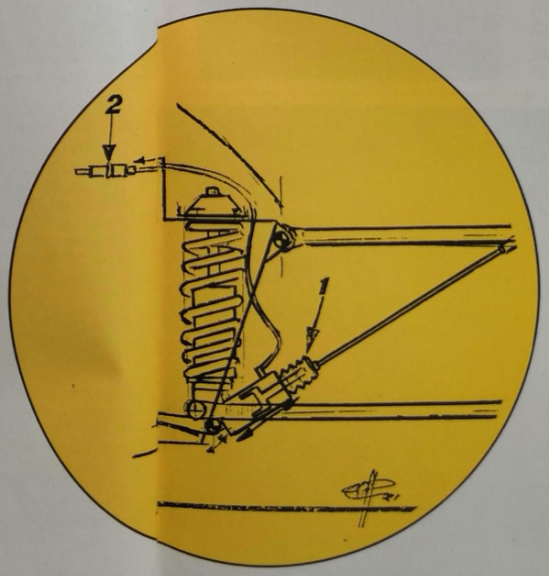
8: compressed air bottle whose pressure is maintained by the use of a small compressor each time the car comes into the pits

This system had been copied by most teams by the time they got to Imola. It allows the car to sink lower when aerodynamic pressure is greater than the air pressure in the hydro-pneumatic cylinder. This allows hydraulic fluid to flow out of the shock absorbers into the bottle (7) which in turn operates a small piston which locks the system. When the car slows, aerodynamic pressure is less, the bottled compresed air pushes the piston back which allows liquid back into the shock absorbers and the hydraulics raise the car again.



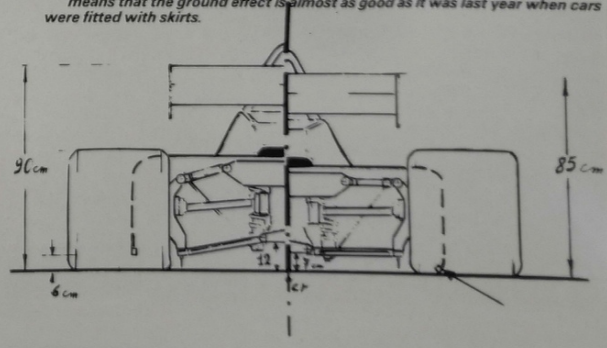
BRABHAM'S NEW SYSTEM

The Brabham team had built a newer and more sophisticated system for Imola. The basic method of operation was no different, but instead of working in conjunction with the spring/shock absorber, it worked independently, the cylinder being mounted on a seperate suspension link.



BACK VIEW

These rear views clearly show the advantages of hydro-pneumatic suspension. On the left, the car is stationary in the pits, and on the right, it is at speed on the track. The mechanics work on the car as usual, but when they've finished, they jack the car up to 12cms which means that the flexible skirts (banned in Imola) are 6cms above the ground, and the rear wing is 90cms above the ground. That's how the car looks when it's stationary: the suspension arms are at rather an odd angle. On the right though, the car is in racing trim: the suspension arms are in their normal position and the rear wing is down to 85cms above the ground. Most important of all though, the flexible skirts are sucked under the car, and that means that the ground effect is almost as good as it was last year when cars were fitted with skirts.



FERRARI IS BACK - IN STYLE

by Rob de la SALLE

It took Ferrari only three weeks to make a come-back from the disasters of Argentina. Almost miraculously, the red cars demonstrated not only a competitive turn of speed, but also - to the great credit of engineer Mauro Forghieri - surprisingly good reliability. For the 70,000 damp Italians at this first European GP of the season (the only bit of "San Marino" about it was the name), it was an extra national GP which was led by "their" red cars... until an unhappy chain of events dropped them out of contention. But for every one of those 70,000 fans, it had been worth their while merely to spectate at Imola

It catapulted away from the corner like a slingshot. The red fibreglass of its chisel nose contrasted tastefully with the silver of its aluminium wings as a couple of tyres brushed the grassy verge. It left a cloud of yellow dust hanging in the air, soon to be whipped away by the spring breeze. Crouching close to the ground, it vanished behind a veil of bluish-grey exhaust smoke which cleared a milli-second later to reveal that Gilles Villeneuve was opposite-locking his way out of a vicious oversteering slide. The Canadian was already well on his way up the hill that follows the difficult Tosa hairpin.

Gilles had been happy even before the start of practice. *"Now we're getting somewhere,"* he had said, alluding to the improvement in the road holding which had come as a result of some judicious chassis stiffening since the race in Buenos Aires. Tests had shown that the Scuderia was on the right road again. Last year, the Ferraris had looked terrible through this same hairpin, but this year they looked quick. What's more, the stop watch confirmed it. Gilles, for once, was quick as well as spectacular.

Three weeks before, Gilles and his team mate Didier Pironi had been in a much less happy position. They had sat alongside each other after the first unofficial practice session, in the garage area allocated by the Argentines to the Scuderia, with equally long faces. Yet it would seem that it needed nothing more than a deep breath of Italian air to set them up again in the good old-fashioned style which one remembered from the days of Lauda and Regazzoni and the more recent championship achievements of Jody Scheckter.

But was it just the enthusiasm of the local spectators, for whom this race was more of a bonus Italian GP than a genuine San Marino GP, that had "lifted" the performance of the red cars?

There was one man for whom this moment was worth savouring: Mauro Forghieri. On the day before official practice began, Enzo Ferrari had visited the Autodromo in person. It wasn't far for him to come: the trip down the Bologna bypass takes barely half an hour

from Maranello. Forghieri was entitled to be proud. In spite of the ever-present head set and microphone, he was obviously well aware that Villeneuve had just done an amazing lap, for he could not ignore the excited movements and cheers of the crowd in the pits grandstand as the commentator greeted each Ferrari lap with mounting excitement. As always, the Ferrari pit started to fill with journalists, but this weekend they weren't just the Italians. It became necessary for guards to be called forward to enable the mechanics in their yellow shirts and black trousers to get on with their work.

The loudspeakers chanted the same phrase over and over: "I nostri" *our boys,* were on the verge of putting an end to the dominance of Nelson Piquet and the dreaded Williams cars. As far as the crowd was concerned, it was acceptable for the Alfas, Patrese or de Cesaris to be pushing the Ferraris, but that was all. Yes indeed, Forghieri and engineer Tomaini were delighted. They gave all the right answers to the journalists' questions, aware as always that ultimately it's their work which gives the Scuderia its success or otherwise. They were at pains to point out that turbocharged engines have yet to reach a high standard of reliability, so don't expect too much, they warned. Indeed, their happiness was literally clouded by their engines' sometimes worrying blue smoke.

Their concern was underlined by the failure of the engine in Villeneuve's car. He had to stand by, helpless, while Arnoux snatched the Friday afternoon "pole" time from him. Failures, either of turbos or pistons, were to oblige Villeneuve and Pironi to jump in and out of their cars, from race chassis to T-car, throughout the two days. None of this manouevering was missed by those dedicated fans in the stand opposite, whistling and cheering depending on who had just done what time. On Saturday afternoon, their whistles demonstrated their feelings when Villeneuve was to trail in with a long plume of smoke from his exhausts...

A small boy in the Ferrari pit was showing just as much interest in the proceedings as those fans. But Jacques Villeneuve, Gilles's son, was probably not aware of the fact that the Ferrari team had something special waiting to guarantee an all-red front row on that Saturday afternoon. To help Jacques's father and "Didi" (Enzo Ferrari's pet name for Pironi) to beat the world's best, the men from Maranello had a trick up their sleeves. It involved increasing the boost pressure of the turbochargers way beyond their "safe" limit. Nobody could say exactly how long a super-boosted engine would last before it blew, but the subterfuge - they thought - was worth the risk if it was to put the Ferraris in front of the grid for tomorrow's race.

It worked out like that for Villeneuve, but not for Pironi, who was forced in the last part of the session to take over his team mate's spare car. It didn't matter. For Villeneuve, with 15 minutes of the session remaining, had pulled it off: a Ferrari was on pole position on home ground.

A few minutes after 3 o'clock on Sunday afternoon, the Scuderia was to do even better than that. Before either of the Ferraris had even negotiated the pits chicane to complete the first lap of the race, the grandstands erupted with a passion rarely seen outside a football stadium. It was like the Maracana in Rio, at the moment when Flamengo scores to equalise with Fluminense, the delirium of 70,000 enraptured fans. The loudspeakers fanned the joyful cries into a frenzy. They were all aware that this Grand Prix was turning into a truly memorable occasion.

The speaker just had time to shout *"Gil Villeneuve al commando"* when his metallic tones were drowned by the roar from the stands. Evidently Pironi was in second place, but there wasn't a hope of hearing the other places in the hub-bub.

In the Ferrari pit, a full grown man brushed back a tear. *"It's the first time for three years,"* he smiled as if to justify his emotion. Two thunder-claps assaulted the ears as the Ferraris rushed past: the turbocharged brigade was on its way. A wave of people shifted towards the Ferrari pit. They found their way inside, hanging about in the corners, the better to follow the Italian TV broadcast on the wide screen colour set installed above the door.

Seven or eight minutes later, the commentator - who had got over the excitement of the first lap - dropped his second bombshell of the day: *"Patrese a superato Reutemann, fantastic."* Patrese had found a way round Reutemann's Williams... It was indeed fortunate that the seats in the grandstand had been firmly secured to the floor: Villeneuve-Pironi-Patrese lying 1-2-3 in the Italian GP was enough to send Latin heart beats well over the recommended rev limit. Whatever happened, a win for a Ferrari or an Italian was now surely a certainty, especially as Patrese had pulled well clear of the Williams in 4th place.

The weather, of course, was far from good. It had rained all morning, and although the sky had tried to clear soon after the start, it was now clouding over again. The weather didn't matter, though. These spectators would willingly stand in the rain without a coat to revel in a moment like this, for this was *ecezionale,* and the louspeakers repeated the word the better to underline the excitement.

Ferrari was going to win! ...The shock when it came was all the greater because it took place as early as the 15th lap, as the word rang around the stands: *"Villeneuve is changing tyres, the track is drying out. He's planning to make up time and re-take the lead, because the others will be stopping soon for slicks as well. Don't worry, he's doing the right thing."*

Two laps later, Gilles's switch was revealed as a ghastly error. The clouds had darkened, the rain was falling and Villeneuve was in the pits again for a change back to wets. He had lost the race. Forghieri stood quietly trembling with rage. Tomaini, his face blank behind his headset, bit his lips; Michelin manager Pierre Dupasquier paced up and down with a fixed expression in his eyes.

"Mama mia, how could he do something so stupid?" was the unasked question in the stands... *"couldn't he see that the clouds were coming back and it was going to rain again?"* Of course not: his view was restricted by his helmet: the only things a driver can see properly are his front wheels and a bit of leather-bound steering wheel. Villeneuve could not have known what was happening in the sky... certainly not to the same extent as the crowds in the stands.

Pironi, meanwhile - unknown to all - was now leading the race with a piece of fixed skirt coming away on the left side of his Ferrari. And his tyres were wearing at a rate that soon had him alarmed. But all that the crowd could see was that he was being hauled in by Piquet, who had left Patrese standing in third place.

The only thing left to do was to stand there mesmerised, watching Pironi's desperate efforts to hold on to the lead and - eventually - to accept the fact that Piquet was going to pass the Ferrari and carry off this semi-Italian GP.

Forghieri was in the same trance as the spectators. He couldn't believe that a chain of events like this could possibly deprive the Ferraris, *his* cars, of the victory they deserved. What made it even worse was the fact that the engines, the one part of the Ferraris which give his engineers their most worrying moments, were staying together on both cars - yet only one was to get in the points.

In the final account, though, there was the reassuring fact that, between them, Villeneuve and Pironi had led no fewer than 46 laps of the GP's 60. When you add the pole position taken by Villeneuve, that's an encouragingly good result for engineers who've had their efforts completely thwarted so far this year.

Now the men from Maranello can see a brighter future. The Ferraris are right there with Piquet, Patrese and Reutemann. They're obviously powerful, and they are beginning to be reliable. The reasons are best known to Forghieri, because nobody else can explain what changes have brought about this fresh state of affairs. No doubt this is the reason why the normally stern Forghieri, during the first moments of Imola practice, was wearing an unaccustomed smile on his lips... □

PROST *Scriptum*

There are days like that, when nothing seems to go right, when everything seems to go against you for no particular reason, and you're completely powerless to do anything about it.

What can you do, for instance about clouds and rain? I think the best think is to go home and sit in front of the television, but you can't really do that when you've got to drive a Renault in a Grand Prix. When I saw the rain at Imola on Sunday morning, my hopes took a dive. Our cars are very difficult to drive in the wet. I felt that all our work over the past two days on a dry track was going to be completely wiped out. Any advantage that we might have had from a good grid position was nothing now. It had all been diluted by the rain.

I may have felt frustrated then, but there was worse to come. Despite the rain, I still felt that I had a chance. I set fourth quickest time in the Sunday morning warm-up on the wet track. The rain began to ease off, it could be dry after a few laps of the race, and then we mightstill be in with a chance.

No way: I retired almost before I'd started. When it was time, I got into the car, strapped myself in, started the engine, pushed in the clutch, selected first and began to de-clutch. And that's when I knew that something was wrong. I could feel it in the gearbox. By then it was too late to put it right, too late to take over the spare instead, in fact too late to do anything. My warming up laps were more a swansong: take a look at the car now because I'm not going to be around for long.

Meanwhile I was considering the options. I might start in second gear and just take it easy from there on. There wasn't much more I could do. The least I could do was try, but I wasn't very optimistic. Gérard Larrousse was waiting for me on the grid. I started the race in second gear, and took off from the grid like a snail. I delayed just about everyone behind me and was soon in last position, cursing my luck. After four laps at the back of the field I called it a day. My San Marino Grand Prix was over. I think it was even more frustrating for me than it was, say, for Didier Pironi. He may have seen victory slipping away from him, but at least he'd had the satisfaction of leading the race and trying his hardest. Even if he'd retired, he might have felt better than I did. It was a most frustrating and disappointing experience.

I never even had a chance to race. I was already down in the dumps when the rest of them were jockeying for position in the first corner. It was infuriating. You spend three days living for a Grand Prix. You're whole life revolves around that race. For two days you spend all your time sorting out the car and getting onto the grid, and then when practice is over, your mind is immediately fixed on the race ahead, nothing else matters. You're working out where you can save time, how you can improve the car. Meanwhile, the race is getting closer and closer. One's programme revolves around working up to that climax, the race. And then quite suddenly, just as your mental state is at its peak for the start, the balloon bursts: nothing, you're not going to start the race at all.

I wasn't really angry, more frustrated. I tried to look at it philosophically as one of those things that happens in life, or at least, in racing. Of course, it should never happen at all, but it does, not just, to me but to most racing drivers at some stage or another in their careers.

I also noticed that I was a lot calmer as person in this situation than I might have been a few years ago. The same sort of thing happened to me when I was in Super Renault and Formula Three, and I would go crazy. I remember that in the final round of the Super Renault championship, it was all down to Jean-Louis Bousquet and I as to who was going to win the championship. All I needed was two or three points and I was the champion. But as we did our warming up laps, I realised that the engine was off-song. This could be costing me the championship before the race had even begun. But fortunately I took my two points and won the series. If I hadn't, I wouldn't be where I am today.

The Imola experience may have been just as frustrating, but at least it didn't have such serious potential consequences. That's because I knew then that in a couple of weeks, I would be in Belgium going through those two days of preparation and working up to the race. Hopefully, all the preparation will be rewarded by many more competitive laps. □

OK, AYJAY?

All the political nonsense which broke out again at Imola is getting beyond a joke. I was very pleased that the race itself was so closely fought, because that diverted attention from some of the squalid little arguments which had delayed practice on Friday.

But if Formula 1 doesn't pull itself together soon, we're going to lose sponsors and we're going to the spectators. The people in the grandstands at Imola on Friday, for example, came to see motor racing, not to watch the cars stuck in the pits while race officials argued with team managers.

I'm a driver, not an engineer or a politician, and I prefer to concentrate on the job that I'm paid to do. At the same time, it seems logical to me that the racing rules should be something that, say, my wife could understand if she was given a ruler. Beverly is a keen spectator who would appreciate a rulebook that was simplified into straightforward terms of (say) minimum height, length, width and weight. Then the designers could get on with their job in peace.

Instead, we've got constant rows over ground clearance and skirts. It isn't even consistent from one country to another. The root of the problem is a crazy rule which forces the designers to incorporate devices on their car which make it "legal" in the pits but "illegal" on the track when it's running at racing speed.

This rule, allegedly made in the interest of improving motorsport, has actually made it worse. It's significant that some of the designers whose teams wanted to ban skirts are now talking about trying to find a way of reintroducing them. As Patrick Head, our own chief engineer, explains things to me, it doesn't take a particularly brilliant race official to check the ground clearance when the permitted gap is 0.000 inch.

From the driver's point of view, the situation is just as unsatisfactory. If anything, the cars are more dangerous than they were before, certainly when they spin, because their momentum and the reduced ground effect sends them much further up the road before they stop. The handling is less predictable, too: one moment you've got downforce, then suddenly you hit a bump and the car wants to fly off the track.

There are some observers who say that it's the job of the driver to overcome the natural hazards of his profession. I can't disagree with that, but I find it impossible to regard the behaviour of the current cars as "natural". When you can't even see a hazard — and I assure you that losing half your downforce over a bump is a major hazard — the driver's opportunity to assess the situation has been taken away from him. It's like asking him to race at night without lights on a road that he's never seen before.

If you think that's frustrating, however, put yourself in the position of a racing car designer! At the moment, Patrick Head doesn't even know what sort of new car to design. He can work 12 hours a day at his drawing board only to discover at the next GP that the part he's just designed has been made illegal or has been banned by a local scrutineer.

Meanwhile, in complete accordance with the rules, some mechanic in (say) the Ferrari pit has been told to increase the boost control so that his driver can have an extra hundred horsepower for one "hot" lap. That's what happened at Imola with Villeneuve's pole position lap, which was set with a tweaked-up engine that was already smoking when Gilles crossed the line to record a time seven-tenths of a second faster than anyone else's.

I hate to think how much that lap cost. Even Ferrari engines don't come cheap, and judging by the flames that I saw coming from the back of it as Gilles limped the car back into the pit lane, that particular turbo-motor wasn't going very much further without an expensive rebuild.

There are not many teams in Formula 1 which can afford to sacrifice engines like that, in fact I think that some of the smaller organisations would have been glad to be able to afford an extra set of tyres, let alone a "throwaway" engine.

Our sport has some serious problems. I'm confident that there are men with the ability and the common sense to sort them out. I hope it is those men, and not those who have failed us recently, who will be allowed to put things right again.

Cockpits

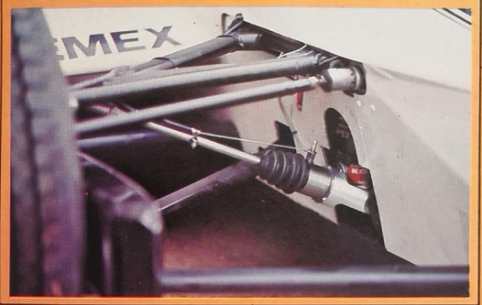
PARMALAT BRABHAM

Brabham-Ford BT 49/9:
Nelson Piquet (BR)
Brabham-Ford BT 49/12:
Hector Rebaque (MEX)
Brabham-Ford BT 49/11:
spare.

The Brabham team had further modified their hydro-pneumatic suspension system. This had been promised after Argentina and it was Gordon Murray's sixth variation. Instead of working with the shock absorbers, the new system worked on seperately sprung suspension arms, which didn't affect the workings of the combined spring/shock absorber. According to Murray, this also eased the mechanics' job.

When the flexible skirt ban blew up on Friday, it caused the team some setting-up problems, to such an extent that on Saturday, Piquet even tried a normally suspended car. However, both Brabhams used the hydro-pneumatic suspension for the race.

Nelson Piquet may not have all the cards up his sleeve as he had in Argentina, but he drove a superb race, while Hector Rebaque also did well to claim fourth place.



SAUDIA LEYLAND WILLIAMS

Williams-Ford FW 07/11:
Alan Jones (AUS)
Williams-Ford FW 07/12:
Carlos Reutemann (RA)
Williams-Ford FW 07/14:
spare.

Frank Williams remained loyal to the FOCA cause during Friday's problems, even though he is in opposition to hydro-pneumatic suspension. However, the team was working on a similar system, and when the contentious suspension was judged to be legal, the team's version was fitted to Jones's car. However, the Australian driver wasn't particularly pleased with the results that it gave, and for the rest of the weekend, both FW07s were fitted with normal suspension.

Carlos Reutemann was competitive throughout the weekend, and many regarded him as favourite for the race, but he was help up by vibration during the race. Alan Jones had a difficult weekend. The gearbox gave trouble during the final qualifying session, and when he jumped into the spare, that car's engine blew up. Alan started well during the race but knocked his front wing askew when trying to overtake Reutemann. He changed tyres three times during the race, and finished in the lower half of the field.

RAGNO BETA ARROWS

Arrows-Ford A3/5:
Riccardo Patrese (I)
Arrows-Ford A3/6:
Siegfried Stohr (I)
Arrows-Ford A3/2:
spare.

Both Arrows arrived in Italy with hydro-pneumatic suspension systems similar to Brabham's, but it wasn't a great success. Neither Patrese nor Stohr could tell whether it was working or not, and it didn't appear very reliable.

When the flexible rubbing strips were banned on Friday, the Arrows team showed was it thought of the ban by running both cars with flexible skirts, saying that it was impossible to modify them. But rigid metal skirts were waiting to be fitted to the cars in the pits, and ten minutes later they were on the cars.

The flexible rubbing strip ban hit Arrows particularly hard because it was very complicated to set up the car properly. Metal skirts were badly damaged when they ran along the ground and that caused the team to revert to normal suspension.

Riccardo Patrese's car was slightly modified and used a development Cosworth engine, designed to slightly modify the car's aerodyanamics because the oil, water and petrol pumps were repositioned. For this reason, the water radiator was mounted on the left, and oil radiator was mounted on the right.

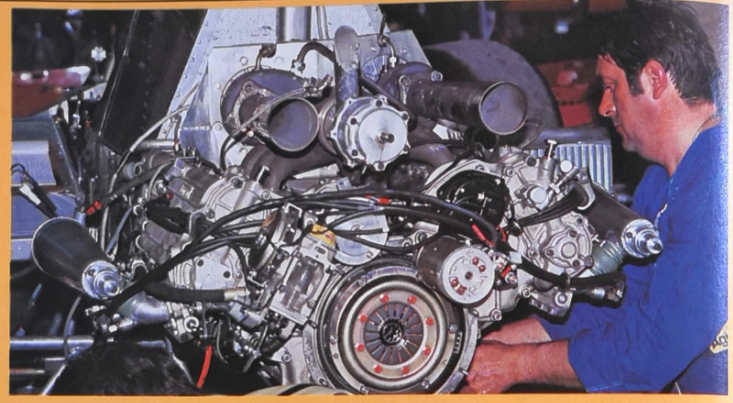
Stohr's car had been lightened by 22 pounds, bringing it into line with Patrese's. However, Siegfried went off the road on Saturday and slightly damaged the front of his car. He was late out in the afternoon qualifying session because of this, and that certainly contributed to his non-qualifying.

Patrese set ninth fastest time and turned out to be a lot more competitive in the race, finishing in a fine second place. Victory must soon be his.

Cockpits

FERRARI SEFAC

Ferrari 126 C/052:
Gilles Villeneuve (CDN)
Ferrari 126 C/051:
Didier Pironi (F)
Ferrari 126 C/050:
spare.



Once back in their homeland, the Ferraris appeared to have regained lost form, and were a lot more competitive than in the previous Grands Prix this year.

Gilles Villeneuve had a modified chassis at Imola. The front end was built according to new safety rules which will come into effect in 1982. Furthermore, a considerable weight saving had been made by using titanium instead of a casting for the suspension mounting points. All three cars had new rear suspension.

Both the drivers' race cars were in a longer wheelbase form thanks to a spacer between engine and gearbox which made the wheelbase 15 cms longer. This altered the weight distribution and also the function of the rear wing. The spare car was still in shorter wheelbase configuration. Gilles Villeneuve tried both versions and prefered the shorter car. Pironi wasn't able to compare the cars but took Gilles's advice and started the race in a shorter car.

The Ferraris were very quick in practice and Gilles put his Ferrari on pole quite easily, although Pironi had considerable engine problems. By cutting the turbo boost, the engines proved to be more reliable during the race. Pironi did well to finish in the points, while Villeneuve looked to be heading for a top six position until the gearbox and clutch dropped him to seventh place at the end.

RENAULT ELF

Renault RE 27B:
René Arnoux (F)
Renault RE 22B:
Alain Prost (F)
Renault RE 21/26B:
spare.

It was a weekend of ups and downs for the Renault team. Practice gave rise to hopes for the race, but the promise was unfulfilled. The Imola outing was expected to be the last race for the RE 20s which should be replaced by RE 30s as from the Belgian Grand Prix. Apart from a brake boost system, the Renaults were unaltered.

René Arnoux set fastest time during the first qualifying session, while Alain Prost was delayed by a faulty engine. The next day, Arnoux was soon in the pits with a damaged engine and was bumped back to the second row. Alain Prost was in turbo trouble after the boost had been turned up slightly, this affecting not only his race car but also the spare.

But Sunday's rain immediately reduced the Renault drivers' chances. Prost's race was brief: he realised during the warm-up laps that the transmission was about to break, and he only did a few laps. Arnoux was hit by Laffite early on which damaged a wheel, and then his gearbox began to tighten up, so he finished a distant eighth.

MARLBORO MCLAREN

McLaren-Ford MP4/1:
John Watson (GB)
McLaren-Ford MP4/2:
Watson's spare
McLaren-Ford M29/5:
Andrea de Cesaris (I)
McLaren-Ford M29/2:
De Cesaris's spare.

The Marlboro McLaren team had two of the promising MP4s at Imola. But the second model proved to be 24 pounds lighter than the first. Half of this was due to a different construction using fewer carbon fibre and kevlar layers. But even so, the MP4 is still four times stiffer than the old M29. The other half of this weight saving came from detail tidying. John Watson used the new car as a spare, because there aren't enough spare parts for it to be used as a race car. A third MP4 chassis has already arrived in England from Salt Lake City where the chassis are made, and is being readied for de Cesaris to use at Monaco.

John Watson continued development of the MP4 during practice,using a set-up similar to that used last year, which probably means that it was too soft in 1980. John said that every practice session brings an improvement to the car, and that he'll be even more competitive at Zolder. But in the race, he lost his nosecone on Arnoux's Renault, and then had two tyre changes, but still drove a good race. Andrea de Cesaris was as determined as ever, and finished in a fine sixth place, despite his uncompetitive M29 and the difficult conditions.

ENSIGN

Ensign-Ford MN 180B/15:
Marc Surer (CH)

Nigel Bennett was in charge of the Ensign team at Imola because Mo Nunn was back in England continuing the search for a sponsor. Ralph Bellamy is no longer with the team; he's running one of March's works Formula Two cars.

With one engine, and a little sponsorship from the ISM Group of Switzerland for Imola, the team were scarcely in an advantageous position.

But with the rain, Surer was more hopeful and took the gamble to start on slicks. It didn't pay off. The rain restarted and instead of possibly picking up a point or two as he'd hoped, Surer finished ninth.

THEODORE RACING

Theodore-Ford TY/01:
Patrick Tambay (F)

There were a number of minor modifications on the Theodore at Imola. The side pods and radiators were mounted differently and there was a new engine cover. A second Theodore, probably fitted with hydro-pneumatic suspension, should be ready for the Belgian Grand Prix.

Tambay had a number of problems during practice. On Friday, the gearbox packed up after only three laps. At the start of the final qualifying session, the car's fuel system deprived it of fuel just a few hundred yards after the pits. Fortunately, the marshals managed to recover the car after 25 minutes, which saved the day, but the delay pushed Tambay to a fine grid position. He started the race on slicks, finally came into change to wets, and then found himself right in among the leaders and proved to be quite competitive with Pironi, Patrese and Piquet, even though he was two laps behind.

MARCH

March-Ford 811/01:
Derek Daly (IRL)
March-Ford 811/03:
Eliseo Salazar (RCH)

Both March chassis had been stiffened considerably, particularly at the front, and the suspension mounting points had also been reinforced. Eliseo Salazar did well to qualify but poor Daly failed to make it on to the grid. Only after the final session was it discovered that one rear spring had partially collapsed. After hitting Guerra early on, Salazar drove well with a damaged front wing, only to retire with a broken engine.

There should be a new March in Belgium, designed by Robin Herd, Alan Mertens and Gordon Coppuck.

ATS WHEELS

ATS-Ford D4/06:
Jan Lammers (NL)
ATS-Ford D4/05:
Slim Borgudd (S)

Jo Ramirez was no longer with the ATS team at Imola, replaced by German mechanic Gunter Richter, while a number of other mechanics have left or threaten to leave the team. Gunter Schmid is now in complete charge of the team, although he was helped by Roger Heavens who has run both Lammers and new driver Borgudd in Formula 3

To everyone's surprise, Borgudd managed to qualify despite his lack of experience and a car that jumped around the track when in a straight line. He finished his first Grand Prix in 13th position. Sadly, Lammers didn't qualify. The hydro-pneumatic suspension didn't work and taking it off proved to be a longer job than at first thought. Jan had only 22 minutes in which to qualify and the car wasn't set up.

ALFA ROMEO AUTODELTA

Alfa Romeo 179C/02:
Mario Andretti (USA)
Alfa Romeo 179C/03:
Bruno Giacomelli (I)
Alfa Romeo 179C/01:
spare.

The Alfa Romeo team tried a hydro-pneumatic suspension system when testing before the San Marino Grand Prix, but the cars were fitted with normal suspension for the Grand Prix itself.

The team had worked on the aerodynamics in search of lost competitivity. New flaps on the side pods channelled air under the car, while on Friday and Saturday, Mario Andretti tested a new nose with angled front fins and it was with this nosecone that he set his fastest practice time.

Bruno Giacomelli broke two engines on the Friday, but had no problem on the Saturday. He collided with Cheever during the race, while Andretti retired with a broken gearbox. Not a fruitful weekend for Alfa Romeo.

TALBOT GITANES

Ligier-Matra JS 17/02:
Jacques Laffite (F)
Ligier-Matra JS 17/03:
Jean-Pierre Jabouille (F)
Ligier-Matra JS 17/01:
spare.

In spite of a number of modifications, the Ligier/Talbot/ Gitanes team was still in considerable trouble. The source of South America's engine problems, the coil, had been changed. New side pods, without fins in front of the rear wheels were fitted, while a variable height suspension system was also fitted: "not hydro-pneumatic, something different," explained Ducarouge. But none of these modifications changed the team's luck.

Jacques Laffite's problems centered around overheating while Jean-Pierre Jabouille couldn't work out why his engine was down on power: he couldn't get over 11,000 revs. According to Jean-François Robin of Matra, the V12 engines aren't giving the same power in the cars as they are on the brake.

Jabouille himself appeared to be in good health physically, but his race turned into a prolonged test session to try and get the engine to run properly and also to improve the stability of the car. Laffite made a good start but a brush with Arnoux broke a front suspension link and he retired.

Cockpits

TEAM TYRRELL

Tyrrell-Ford 010/3-6:
Eddie Cheever (USA)
Tyrrell-Ford 010/2:
Michele Alboreto (I)

The Tyrrells, like a numbr of other cars, arrived in Italy fitted with a hydro-pneumatic suspension system which was soon dismantled because it wouldn't work properly. Cheever complained that it frightened him when it didn't work.

Michele Alboreto did well to qualify in front of his more experienced teammate in his first Grand Prix. However, it must be said that Eddie had brake problems on Saturday in his race car when the front wheels kept locking up. He took over the spare but found that to be a lot less competitive which upset him as he reckoned he could have qualified in the first ten.

Two damaged cars were delivered back to the Tyrrell pit after the race: Cheever had a huge accident with Giacomelli, while Alboreto tangled with Gabbiani. Not a good weekend for the Tyrrells, sponsored by a local tile company for this race.

DENIM OSELLA

Osella-Ford AI/03:
Beppe Gabbiani (I)
Osella-Ford AI/04:
Miguel-Angel Guerra (RA)

The Osellas had undergone considerable development since their return from South America. For a start, they were over 30 lbs lighter, and were fitted with new side pods, anti-roll bars and differentials. There were a number of other detailed modifications, plus slightly altered front and rear wings.

On the Wednesday before the Grand Prix, Beppe Gabbiani tested a hydro-pneumatic suspended system at Monza. This was designed by engineer Valentini and is further described in our technical feature. However, Enzo Osella decided against using the system, partially because he feared for its reliability, but also for its legality.

Both Gabbiani and Guerra managed to get onto the grid, although they were using different set-ups: Gabbiani's car was softly sprung, while Guerra's was on hard springs. Unfortunately, after qualifying well, the Osella team had a bad race. On the first lap Guerra went off into the Armco and fractured his left leg, while Gabbiani's car was damaged in an incident with Alboreto.

FITTIPALDI

Fittipaldi-Ford F8C/3:
Keke Rosberg (SF)
Fittipaldi-Ford F8C/4:
Chico Serra (BR)

Keke Rosberg's car was fitted with a hydro-pneumatic suspension system which proved to be satisfactory, while both his and Chico Serra's were fitted with new rear suspension, which broke on Serra's car on the Saturday. The Fittipaldi team gave the new Avon tyres their race debut and used the new English tyres throughout the weekend.

While Rosberg had problems with his car's handling, both drivers were delayed because of insufficient ground clearance at the exit and entrance to the pit lane. Rosberg suggested that this was due to the smaller diameter Avon tyres.

Sadly, Serra failed to qualify, but the tanned Finn was well up on the grid, only to retire on the 15th lap with a damaged engine.

CANDY TOLEMAN

Toleman-Hart TG 181/2:
Brian Henton (GB)
Toleman-Hart TG 181/1:
Derek Warwick (GB)

This was the race where the Toleman cars were to make their debut, although few people in the team expected them to qualify. Weather had held up testing in England, and the unknown factors of tyres, engine and chassis had to be understood.

The Toleman itself appears to be rather complicated around the rear end. The engine isn't a stressed member and is mounted on two pods which extend backwards from the cockpit, unlike other Grand Prix cars. These pods, plus various accessories and the heat exchangers appear to make the rear end aerodynamically untidy.

The Tolemans' main problem at Imola was the heat, and the lack of heat exchanging. The heat caused a small fire in Warwick's car on the Friday, but it was the insufficient heat exchanging which never allowed the engine to give full power. A cracked plug stopped Henton from practising on Saturday afternoon, but both cars were well off the pace anyway.

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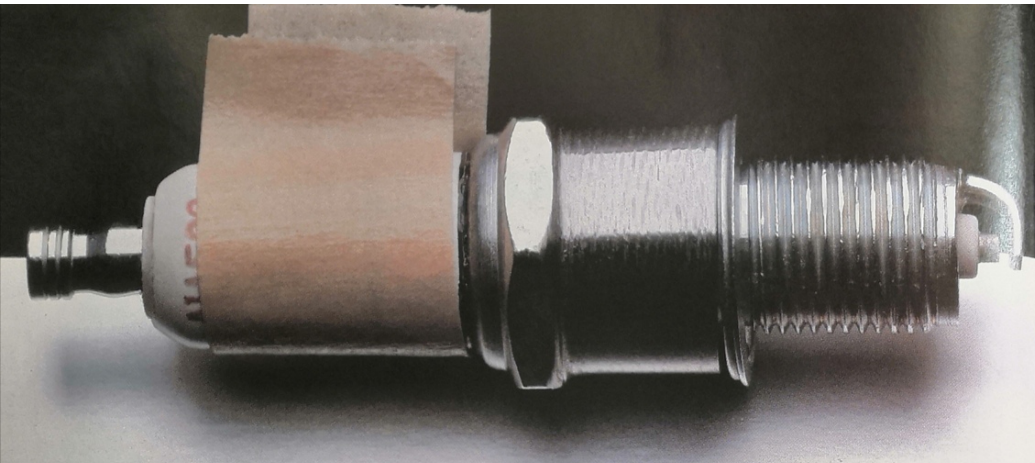

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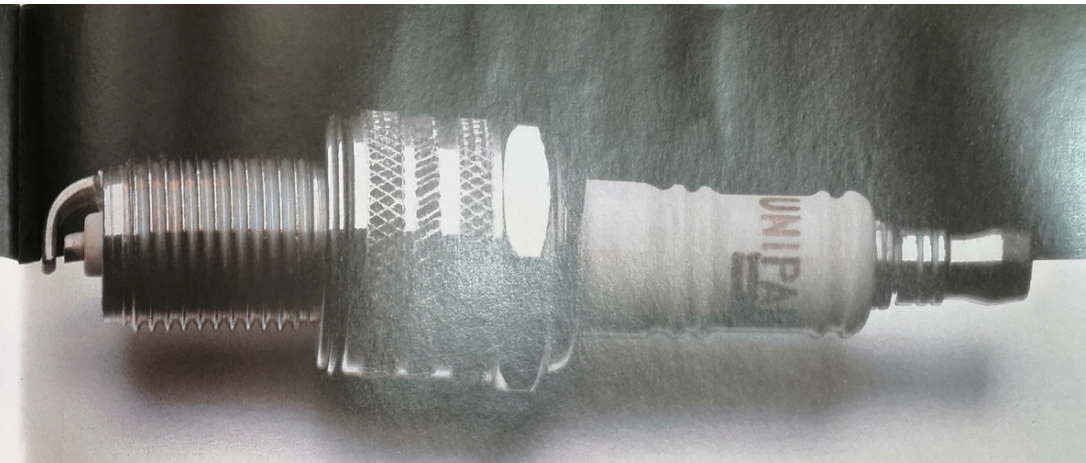

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